SEQUENCE LISTING

<110> Verbsky, Michelle L.
      Baublite, Catherine
      Williams, Deryck J.
      Kloek, Andrew P.
      Davila-Aponte, Jennifer A.
      Hresko, Michelle Coutu
      McLaird, Merry B.

<120> NUCLEIC ACIDS ENCODING ANTHELMINTIC
      AGENTS AND PLANTS MADE THEREFROM

<130> 12557-016001

<150> US 60/445,293
<151> 2003-02-05

<160> 130

<170> FastSEQ for Windows Version 4.0

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<213> Ricinus communis

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Met Gly Gly Gly Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
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gag aag aaa gga gga agc agc cac ctt aag cga gcg ccg cac acg aag   96
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
            20   25   30

cct cct ttc aca ctt ggt gac ctc aag aga gcc atc cca ccc cat tgc   144
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
        35   40   45

ttt gaa cgc tct ttt gtg cgc tca ttc tcc tat gtt gcc tat gat gtc   192
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50   55   60

tgc tta agt ttt ctt ttc tac tcg atc gcc acc aac ttc ttc cct tac   240
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65   70   75   .80

atc tct tct ccg ctc tcg tat gtc gct tgg ctg gtt tac tgg ctc ttc   288
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85   90   95

caa ggc tgc att ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc   336

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Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100                 105                 110

cat cat gct ttt agt gag tat cag ctg gct gat gac att gtt ggc cta    384
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
            115                 120                 125

att gtc cat tct gca ctt ctg gtt cca tat ttt tca tgg aaa tat agc    432
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
        130                 135                 140

cat cgc cgc cac cat tct aac ata gga tct ctc gag cga gac gaa gtg    480
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160

ttc gtc ccg aaa tca aag tcg aaa att tca tgg tat tct aag tac tta    528
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175

aac aac ccg cca ggt cga gtt ttg aca ctt gct gcc acg ctc ctc ctt    576
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
                180                 185                 190

ggc tgg cct tta tac tta gct ttc aat gtc tct ggt aga cct tac gat    624
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
            195                 200                 205

cgc ttt gct tgc cat tat gat ccc tat ggc cca ata ttt tcc gaa aga    672
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
        210                 215                 220

gaa agg ctt cag att tac att gct gac ctc gga atc ttt gcc aca acg    720
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240

ttt gtg ctt tat cag gct aca atg gca aaa ggg ttg gct tgg gta atg    768
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255

cgt atc tat ggg gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg    816
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260                 265                 270

atc aca tac ttg cag cac act cac cca gct att cca cgc tat ggc tca    864
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
            275                 280                 285

tcg gaa tgg gat tgg ctc cgg gga gca atg gtg act gtc gat aga gat    912
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
290                 295                 300

tat ggg gtg ttg aat aaa gta ttc cat aac att gca gac act cat gta    960
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320

gct cat cat ctc ttt gct aca gtg cca cat tac cat gca atg gag gcc   1008
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
```

```
                   325                    330                        335
act aaa gca atc aag cct ata atg ggt gag tat tac cgg tat gat ggt        1056
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
                340             345                 350

acc cca ttt tac aag gca ttg tgg agg gag gca aag gag tgc ttg ttc        1104
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
            355             360             365

gtc gag cca gat gaa gga gct cct aca caa ggc gtt ttc tgg tac cgg        1152
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370             375             380

aac aag tat taa                                                        1164
Asn Lys Tyr
385


<210> 2
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<213> Lesquerella fendleri

<220>
<221> CDS
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atg ggt gct ggt gga aga ata atg gtt acc ccc tct tcc aag aaa tca        48
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5               10                  15

gaa act gaa gcc cta aaa cgt gga cca tgt gag aaa cca cca ttc act        96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
                20              25                  30

gtt aaa gat ctg aag aaa gca atc cca cag cat tgt ttt cag cgc tct       144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
            35              40              45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct       192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50              55              60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct       240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65              70              75                  80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt       288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85              90                  95

gtc tta aca ggt atc tgg gtc att ggc cat gaa tgt ggt cac cat gca       336
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
                100             105                 110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc ttc cat       384
```

```
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
    115             120             125
```

```
tcc ttc ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt    432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130             135             140
```

```
cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca    480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145             150             155             160
```

```
ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct    528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165             170             175
```

```
ctt gga cgc att ctg gtg tta aca gtt cag ttt atc ctc ggg tgg cct    576
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
            180             185             190
```

```
ttg tat cta ccc ttt aat gta tca ggt aga cct tat gat ggt ttc gct    624
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
            195             200             205
```

```
tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc    672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210             215             220
```

```
cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt    720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240
```

```
tac cgt tac gct gct tca caa gga ttg act gct atg atc tgc gtc tat    768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
            245             250             255
```

```
gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc    816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260             265             270
```

```
ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg    864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
    275             280             285
```

```
gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tat gga atc    912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290             295             300
```

```
ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat    960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305             310             315             320
```

```
ctc ttt gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg    1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325             330             335
```

```
ata aag cca ata ctt ggt gat tac tac cac ttc gat gga aca ccg tgg    1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
```

```
                340                      345                      350
tat gtg gcc atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg      1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
            355                  360                  365

gat acg gaa cgt ggg aag aaa ggt gtg tac tat tac aac aat aag tta      1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
            370                  375                  380

tga                                                                  1155


<210> 3
<211> 1152
<212> DNA
<213> Lesquerella lindheimeri

<220>
<221> CDS
<222> (1)...(1149)

<400> 3
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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15

aaa cct gaa gcc cta aga cgt ggg cca ggt gag aaa cca cca ttc act       96
Lys Pro Glu Ala Leu Arg Arg Gly Pro Gly Glu Lys Pro Pro Phe Thr
                20                  25                  30

gtt caa gat cta agg aaa gca atc cca cgg cat tgt ttc aaa cgc tct      144
Val Gln Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
            35                  40                  45

atc cct cgt tct ttc tcc tat ctt ctc aca gat atc att tta gct tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
        50                  55                  60

tgc ttc tac tac gtg gcc acc aat tac ttc tca ctt ctt cca cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                  70                  75                  80

ctc tct act tac ttt gct tgg cct ctc tat tgg gta tgt caa ggc tgt      288
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac caa gca      336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
                100                 105                 110

ttt agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat      384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
            115                 120                 125

acc ttc ctc ctc atc cct tac ttc tcc tgg aag tat agt cat cgt cgt      432
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
        130                 135                 140
```

```
cac cat gcc aat aat gga tca ctc gag aga gat gaa gtc ttt gtc cca        480
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145             150             155             160

ccg aag aaa gct gca gtc aaa tgg tat gtc aaa tac ctc aac aac cct        528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165             170             175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc gga tgg ccc        576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
                180             185             190

ttg tac cta gcc ttt aac gta tca ggt aga tcc tat gat ggt ttc gct        624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
            195             200             205

tca cat ttc ttc cca cat gca ccc atc ttc aag gac cga gaa cgt ctc        672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
        210             215             220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt        720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240

tac cgt tac gca gct aca aaa gga ttg acc gct atg atc tgc gtc tat        768
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245             250             255

ggg gta cct cct ctg gtt gta aac ttt ttc ctt gtc ttg gtc act ttc        816
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
                260             265             270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg        864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275             280             285

gac tgg att aga gga gcc atg gtt aca gta gac aga gac tat ggg atc        912
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
    290             295             300

ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat        960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305             310             315             320

ctt ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg       1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325             330             335

ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccc tgg       1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340             345             350

tat gtg gct atg tat agg gaa gca aag cag tgt ctc tat gta gaa cag       1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
            355             360             365
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gat aca gaa aag aag aaa ggt gtc tac tat tac aac aat aag tta          1149
Asp Thr Glu Lys Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370             375             380

tga                                                                  1152
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<210> 4
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<212> DNA
<213> Lesquerella gracilis A

<220>
<221> CDS
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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
1               5               10              15

aaa cct caa gcc cta aga cgt gga cca tgt gag aaa cca cca ttc act       96
Lys Pro Gln Ala Leu Arg Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20              25              30

gtt aaa gat ctg aag aaa gca atc cca ccg cat tgt ttc aaa cgc tct      144
Val Lys Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
        35              40              45

atc cct cgc tct ttc tct tac ctt ctc aca gat ttc att cta gct tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
    50              55              60

tgc ttc tac tac gtg gct aca aat tac ttc tct ctt ctc cca cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65              70              75              80

gtc tct aat tac ctg gct tgg cct ctc tat tgg ata tgt caa ggc tgt      288
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
            85              90              95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac cat gca      336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
            100             105             110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat      384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115             120             125

tcc ttc ctc ctt gtc cct tac ttc tcc tgg aag tac agt cat cgt cgt      432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130             135             140

cac cat tcc aac aat gga tcc ctc gag aaa gat gaa gtc ttt gtt cca      480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145             150             155             160

cct aag aaa gct gca gtc aaa tgg tat gtt aag tac ctc aac aac cct      528
```

```
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165                 170             175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc ggg tgg cct    576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185             190

ttg tat cta gcc ttt aac gta tca ggt aga ccc tat gat ggg ttc gct    624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
            195                 200             205

tca cac ttc ttt cct cat gca ccc atc ttc agg gac cgt gaa cgc ctc    672
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
            210                 215             220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt    720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235             240

tac cgt tac gct gct tca aaa gga ttg acc gct atg atc tgc gtc tac    768
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
            245                 250             255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctc gtg ttg gtc act ttc    816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265             270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg    864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
            275                 280             285

gaa tgg att aga gga gcc ttg gtt aca gta gac aga gac tat gga atc    912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
            290                 295             300

ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat    960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315             320

att ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg    1008
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325                 330             335

ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccg tgg    1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345             350

tat gtg gcc atg tac agg gaa gca aag gag tgt ctc tat gta gaa cag    1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
            355                 360             365

gat aca gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta    1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
            370                 375             380

tga                                                                1155
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<210> 5
<211> 1155
<212> DNA
<213> Lesquerella gracilis B

<220>
<221> CDS
<222> (1)...(1152)

<400> 5
atg ggt gct ggt gga aga ata atg gtt acc cct tct tcc aag aaa tca        48
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
1               5                   10                  15

gaa act gaa gcc cta aaa cgt gga cca tgt gag aaa cca cca ttc act        96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
                20                  25                  30

gtt aaa gat ctg aag aaa gca atc cca cag cat tgt ttt caa cgc tct       144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
            35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct       192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct       240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt       288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95

gtc cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca       336
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
                100                 105                 110

ttc agt gac tat caa tgg cta gat gac act gtt ggt ttt atc ttc cat       384
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
            115                 120                 125

tcc tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt       432
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca       480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct       528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc att ctg gtg tta aca gtt cgg ttt atc ctc ggg tgg cct       576
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190
```

```
ttg tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct        624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195             200             205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc        672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210             215             220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt        720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240

tac cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat        768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
            245             250             255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc        816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260             265             270

ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg        864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275             280             285

gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tac gga atc        912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
        290             295             300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat        960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305             310             315             320

ctt ttc gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg       1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325             330             335

ata aag cca ata ctt ggt gat tac tac cat ttc gat gga aca ccg tgg       1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340             345             350

tat gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg       1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
            355             360             365

gat acg gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta       1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
        370             375             380

tga                                                                    1155
```

<210> 6
<211> 1125
<212> DNA
<213> Crepis biennis

<220>

```
<221> CDS
<222> (1)...(1122)

<400> 6
atg ggt gcc cac ggc cat ggt cga aca tcg aaa aaa tcg gtc atg gaa        48
Met Gly Ala His Gly His Gly Arg Thr Ser Lys Lys Ser Val Met Glu
1               5                   10                  15

cgt gtc tcg gtt gat cca gta ccc ttc tcg cta agt gat tta aag caa        96
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
            20                  25                  30

gca atc cct ccc cat tgc ttc cag cga tct gtc atc cgt tca tct tac       144
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
        35                  40                  45

tat gta gtt cac gat ctc att att gcc tac atc ttc tac ttc ctt gcc       192
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
        50                  55                  60

gat aaa tat att ccg att ctc cct gct cct cta gcc tac tta gct tgg       240
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
65                  70                  75                  80

ccc ctt tac tgg ttc tgt caa gct agc atc ctc act ggt tta tgg atc       288
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
                85                  90                  95

ctc ggt cat gaa tgc ggt cac cat gcc ttt agc gag tac caa tgg gtt       336
Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
                100                 105                 110

gac gac act gtg ggc ttc atg gtc cac tca ttt ctc ctc acc ccg tat       384
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
            115                 120                 125

ttc tcg tgg aaa tac agt cac cgg aat cac cat gcc aac aca agt tcc       432
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
        130                 135                 140

atc gat aac gat gaa gtt tac att ccg aaa agc aag tcc aaa ctc gcg       480
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160

ctt acc tat aaa ctt ctt aac aac ccg cct ggt cga ctg tta gtt atg       528
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
                165                 170                 175

gtt atc atg ttc acc cta gga ttt cct tta tac ctc ttg aca aat att       576
Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
                180                 185                 190

tcc ggc aag aag tac gac agg ttt gcc aac cac ttc gac ccc atg agt       624
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
            195                 200                 205

cca att ttc aag gaa cgt gag cgg ttt cag gtc ttg ctt tcg gat ctt       672
```

```
      Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
          210             215             220

      ggc ctt ctt gct gtg ttt tat gga att aaa gtt gct gta gca aag aaa      720
      Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
      225             230             235             240

      gga gct gcg tgg gtg gcg tgt atg tat gga gtt ccg atg cta ggc gta      768
      Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
                  245             250             255

      ttt acc ctt ttc gat atc atc acg tac ttg cac cac acc cat cag tcg      816
      Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
                  260             265             270

      tct cct cat tat gac tca act gaa tgg aac tgg atc aga ggg gcg ttg      864
      Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
                  275             280             285

      tca gca atc gat agg gac ttt ggg ttc atg aat agt gtt ttc cat gat      912
      Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
              290             295             300

      gtt aca cac act cac gtc atg cat cat atg ttt tca tac att cca cac      960
      Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
      305             310             315             320

      tat cat gcg aaa gag gca agg gat gca atc aat aca atc ata ggc gac      1008
      Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
                  325             330             335

      tat tat atg atc gat agg act cca att ttg aaa gca ctg tgg aga gag      1056
      Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
                  340             345             350

      gcc aag gaa tgc atg tac atc gag cct gat agc aag cgc aaa ggt gta      1104
      Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
                  355             360             365

      tat tgg tac cat aaa ttg tga                                          1125
      Tyr Trp Tyr His Lys Leu
          370
```

<210> 7
<211> 1152
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1149)

<400> 7
```
      atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg      48
      Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
       1               5               10              15
```

```
gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg        96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20              25              30

gtg gga gat ctg aag aaa gcc atc cca ccc cat tgc ttt gaa cgc tct       144
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Glu Arg Ser
            35              40              45

ttt gtg cgc tca ttc tcc tat gtt gcc tat gat gtc tgc tta agt ttt       192
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
        50              55              60

ctt ttc tac tcg atc gcc acc aac ttc ttc cct tac atc tct tct ccg       240
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
65              70              75              80

ctc tcg tat gtc gct tgg ctg gtt tac tgg ctc ttc caa ggc tgc att       288
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                85              90              95

ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc cat cat gct ttt       336
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
            100             105             110

agt gag tat cag ctg gct gat gac att gtt ggc cta att gtc cat tct       384
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
            115             120             125

gca ctt ctg gtt cca tat ttt tca tgg aaa tat agc cat cgc cgc cac       432
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130             135             140

cat tct aac ata gga tct ctc gag cga gac gaa gtg ttc gtc ccg aaa       480
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145             150             155             160

tca aag tcg aaa att tca tgg tat tct aag tac tta aac aac ccg cca       528
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
            165             170             175

ggt cga gtt ttg aca ctt gct gcc acg ctc ctc ctt ggc tgg cct tta       576
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
            180             185             190

tac tta gct ttc aat gtc tct ggt aga cct tac gat cgc ttt gct tgc       624
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
            195             200             205

cat tat gat ccc tat ggc cca ata ttt tcc gaa aga gaa agg ctt cag       672
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
    210             215             220

att tac att gct gac ctc gga atc ttt gcc aca acg ttt gtg ctt tat       720
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225             230             235             240

cag gct aca atg gca aaa ggg ttg gct tgg gta atg cgt atc tat ggg       768
```

```
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
            245             250             255
```

```
gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg atc aca tac ttg    816
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
            260             265             270
```

```
cag cac act cac cca gct att cca cgc tat ggc tca tcg gaa tgg gat    864
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
            275             280             285
```

```
tgg ctc cgg gga gca atg gtg act gtc gat aga gat tat ggg gtg ttg    912
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
            290             295             300
```

```
aat aaa gta ttc cat aac att gca gac act cat gta gct cat cat ctc    960
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305             310             315             320
```

```
ttt gct aca gtg cca cat tac cat gca atg gag gcc act aaa gca atc    1008
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
            325             330             335
```

```
aag cct ata atg ggt gag tat tac cgg tat gat ggt acc cca ttt tac    1056
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
            340             345             350
```

```
aag gca ttg tgg agg gag gca aag gag tgc ttg ttc gtc gag cca gat    1104
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
            355             360             365
```

```
gaa gga gct cct aca caa ggc gtt ttc tgg tac cgg aac aag tat         1149
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
            370             375             380
```

```
taa                                                                 1152
```

```
<210> 8
<211> 1155
<212> DNA
<213> Lesquerella fendleri
```

```
<220>
<221> CDS
<222> (1)...(1152)
```

```
<400> 8
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg    48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
1               5               10              15
```

```
gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg    96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
                20              25              30
```

```
gtg gga gat ctg aag aaa gca atc cca cag cat tgt ttt cag cgc tct    144
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
```

```
              35                        40                        45
atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct    192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                      55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct    240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                      70              75                      80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt    288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95

gtc tta aca ggt atc tgg gtc att ggc cat gaa tgt ggt cac cat gca    336
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc ttc cat    384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
            115                 120                 125

tcc ttc ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt    432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca    480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct    528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175

ctt gga cgc att ctg gtg tta aca gtt cag ttt atc ctc ggg tgg cct    576
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
                180                 185                 190

ttg tat cta ccc ttt aat gta tca ggt aga cct tat gat ggt ttc gct    624
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
            195                 200                 205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc    672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt    720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240

tac cgt tac gct gct tca caa gga ttg act gct atg atc tgc gtc tat    768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc    816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
```

```
ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg      864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275                 280                 285

gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tat gga atc      912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat      960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320

ctc ttt gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg     1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325                 330                 335

ata aag cca ata ctt ggt gat tac tac cac ttc gat gga aca ccg tgg     1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350

tat gtg gcc atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg     1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
            355                 360                 365

gat acg gaa cgt ggg aag aaa ggt gtg tac tat tac aac aat aag tta     1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
        370                 375                 380

tga                                                                 1155
```

```
<210> 9
<211> 1152
<212> DNA
<213> Lesquerella lindheimeri

<220>
<221> CDS
<222> (1)...(1149)

<400> 9
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg       48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
1               5                   10                  15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg       96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20                  25                  30

gtg gga gat cta agg aaa gca atc cca cgg cat tgt ttc aaa cgc tct      144
Val Gly Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
        35                  40                  45

atc cct cgt tct ttc tcc tat ctt ctc aca gat atc att tta gct tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
    50                  55                  60
```

```
tgc ttc tac tac gtg gcc acc aat tac ttc tca ctt ctt cca cag cct        240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65              70              75              80

ctc tct act tac ttt gct tgg cct ctc tat tgg gta tgt caa ggc tgt        288
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85              90              95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac caa gca       336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
            100             105             110

ttt agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat       384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115             120             125

acc ttc ctc ctc atc cct tac ttc tcc tgg aag tat agt cat cgt cgt       432
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130             135             140

cac cat gcc aat aat gga tca ctc gag aga gat gaa gtc ttt gtc cca       480
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145             150             155             160

ccg aag aaa gct gca gtc aaa tgg tat gtc aaa tac ctc aac aac cct       528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165             170             175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc gga tgg ccc       576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180             185             190

ttg tac cta gcc ttt aac gta tca ggt aga tcc tat gat ggt ttc gct       624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
        195             200             205

tca cat ttc ttc cca cat gca ccc atc ttc aag gac cga gaa cgt ctc       672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210             215             220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt       720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240

tac cgt tac gca gct aca aaa gga ttg acc gct atg atc tgc gtc tat       768
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
            245             250             255

ggg gta cct cct ctg gtt gta aac ttt ttc ctt gtc ttg gtc act ttc       816
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260             265             270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg       864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
    275             280             285

gac tgg att aga gga gcc atg gtt aca gta gac aga gac tat ggg atc       912
```

```
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295             300
```

```
ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat      960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310             315             320
```

```
ctt ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg     1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325             330             335
```

```
ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccc tgg     1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340             345             350
```

```
tat gtg gct atg tat agg gaa gca aag cag tgt ctc tat gta gaa cag     1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
                355             360             365
```

```
gat aca gaa aag aag aaa ggt gtc tac tat tac aac aat aag tta         1149
Asp Thr Glu Lys Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
        370             375             380
```

```
tga                                                                 1152
```

```
<210> 10
<211> 1155
<212> DNA
<213> Lesquerella gracilis A

<220>
<221> CDS
<222> (1)...(1152)

<400> 10
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg       48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
1               5               10              15
```

```
gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg       96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20              25              30
```

```
gtg gga gat ctg aag aaa gca atc cca ccg cat tgt ttc aaa cgc tct      144
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
            35              40              45
```

```
atc cct cgc tct ttc tct tac ctt ctc aca gat ttc att cta gct tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
        50              55              60
```

```
tgc ttc tac tac gtg gct aca aat tac ttc tct ctt ctc cca cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65              70              75              80
```

```
gtc tct aat tac ctg gct tgg cct ctc tat tgg ata tgt caa ggc tgt      288
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
```

```
                          85                      90                      95

gtc tta acc ggt gtt tgg gtc ctt ggc cat gaa tgt ggt cac cat gca        336
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
            100             105             110

ttc agt gac tat caa tgg gta gat gac act gtt ggt ttt atc atc cat        384
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
            115             120             125

tcc ttc ctc ctt gtc cct tac ttc tcc tgg aag tac agt cat cgt cgt        432
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
        130             135             140

cac cat tcc aac aat gga tcc ctc gag aaa gat gaa gtc ttt gtt cca        480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145             150             155             160

cct aag aaa gct gca gtc aaa tgg tat gtt aag tac ctc aac aac cct        528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165             170             175

ctt gga cgc act gtg gtg tta ata gtc cag ttt gtc ctc ggg tgg cct        576
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
                180             185             190

ttg tat cta gcc ttt aac gta tca ggt aga ccc tat gat ggg ttc gct        624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
            195             200             205

tca cac ttc ttt cct cat gca ccc atc ttc agg gac cgt gaa cgc ctc        672
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
        210             215             220

cat ata tac atc aca gat gct ggt att cta gct gtc tgt tat ggt ctt        720
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240

tac cgt tac gct gct tca aaa gga ttg acc gct atg atc tgc gtc tac        768
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245             250             255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctc gtg ttg gtc act ttc        816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
                260             265             270

ttg cag cac act cat cct tca tta cct cac tat gat tca acc gag tgg        864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
            275             280             285

gaa tgg att aga gga gcc ttg gtt aca gta gac aga gac tat gga atc        912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
            290             295             300

ttg aac aag gtg ttc cac aac ata aca gac aca cat gtg gct cat cat        960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305             310             315             320
```

```
att ttc gca aca ata ccg cat tat aat gca atg gaa gct aca gag gcg      1008
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325             330             335

ata aag cca ata ctc gga gac tac tac cat ttc gat gga aca ccg tgg      1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340             345             350

tat gtg gcc atg tac agg gaa gca aag gag tgt ctc tat gta gaa cag      1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
            355             360             365

gat aca gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta      1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370             375             380

tga                                                                  1155


<210> 11
<211> 1155
<212> DNA
<213> Lesquerella gracilis B

<220>
<221> CDS
<222> (1)...(1152)

<400> 11
atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg      48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
1           5               10              15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg      96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20              25              30

gtg gga gat ctg aag aaa gca atc cca cag cat tgt ttt caa cgc tct      144
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35              40              45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct      192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50              55              60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct      240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65              70              75              80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt      288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85              90              95

gtc cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca      336
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100             105             110
```

```
ttc agt gac tat caa tgg cta gat gac act gtt ggt ttt atc ttc cat        384
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115             120             125

tcc tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt        432
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130             135             140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca        480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145             150             155             160

ccg aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct        528
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165             170             175

ctt gga cgc att ctg gtg tta aca gtt cgg ttt atc ctc ggg tgg cct        576
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180             185             190

ttg tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct        624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195             200             205

tca cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc        672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210             215             220

cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt        720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240

tac cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat        768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
            245             250             255

gga gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc        816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260             265             270

ttg cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg        864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
        275             280             285

gaa tgg att aga gga gct ttg gtt acg gta gac aga gac tac gga atc        912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
        290             295             300

ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat        960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305             310             315             320

ctt ttc gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg        1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325             330             335

ata aag cca ata ctt ggt gat tac tac cat ttc gat gga aca ccg tgg        1056
```

```
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
        340             345             350

tat gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg      1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
        355             360             365

gat acg gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta      1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
        370             375             380

tga                                                                  1155
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<210> 12
<211> 1143
<212> DNA
<213> Crepis biennis

<220>
<221> CDS
<222> (1)...(1140)

<400> 12
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atg ggt gca ggt gga aga atg ccg gtt cct act tct tcc aag aaa tcg        48
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                  10                  15

gaa acc gac acc aca aag cgt gtg ccg tgc gag aaa ccg cct ttc tcg        96
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
                20                  25                  30

gtg gga gat ctg aag aaa gca atc cct ccc cat tgc ttc cag cga tct      144
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Gln Arg Ser
            35                  40                  45

gta atc cgt tca tct tac tat gta gtt cac gat ctc att att gcc tac      192
Val Ile Arg Ser Ser Tyr Tyr Val Val His Asp Leu Ile Ile Ala Tyr
        50                  55                  60

atc ttc tac ttc ctt gcc gat aaa tat att ccg att ctc cct gct cct      240
Ile Phe Tyr Phe Leu Ala Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro
 65                  70                  75                  80

cta gcc tac tta gct tgg ccc ctt tac tgg ttc tgt caa gct agc atc      288
Leu Ala Tyr Leu Ala Trp Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile
                85                  90                  95

ctc act ggt tta tgg atc ctc ggt cat gaa tgc ggt cac cat gcc ttt      336
Leu Thr Gly Leu Trp Ile Leu Gly His Glu Cys Gly His His Ala Phe
                100                 105                 110

agc gag cac caa tgg gtt gac gac act gtg ggc ttc atg gtc cac tca      384
Ser Glu His Gln Trp Val Asp Asp Thr Val Gly Phe Met Val His Ser
            115                 120                 125

ttt ctc ctc acc ccg tat ttc tcg tgg aaa tac agt cac cgg aat cac      432
Phe Leu Leu Thr Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His
```

```
          130              .    135                      140

cat gcc aac aca agt tcc att gat aac gat gaa gtt tac att ccg aaa        480
His Ala Asn Thr Ser Ser Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys
145                 150                 155                 160

agc aag tcc aaa ctc gcg ctt acc tat aaa ctt ctt aac aac ccg cct        528
Ser Lys Ser Lys Leu Ala Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro
                165                 170                 175

ggt cga ctg tta gtt atg gtt atc atg ttc acc cta gga ttt cct tta        576
Gly Arg Leu Leu Val Met Val Ile Met Phe Thr Leu Gly Phe Pro Leu
                180                 185                 190

tac ctc ttg aca aat att tcc ggc aag aag tac gac agg ttt gcc aac        624
Tyr Leu Leu Thr Asn Ile Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn
            195                 200                 205

cac ttc gac ccc atg agt cca att ttc aag gaa cgt gag cgg ttt cag        672
His Phe Asp Pro Met Ser Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln
        210                 215                 220

gtc ttg ctt tcg gat ctt ggc ctt ctt gct gtg ttt tat gga att aaa        720
Val Leu Leu Ser Asp Leu Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys
225                 230                 235                 240

gtt gct gta gca aag aaa gga gct gcg tgg gtg gcg tgt atg tat gga        768
Val Ala Val Ala Lys Lys Gly Ala Ala Trp Val Ala Cys Met Tyr Gly
                245                 250                 255

gtt ccg atg cta ggc gta ttt acc ctt ttc gat atc atc acg tac ttg        816
Val Pro Met Leu Gly Val Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu
                260                 265                 270

cac cac acc cat cag tcg tct cct cat tat gac tca act gaa tgg aac        864
His His Thr His Gln Ser Ser Pro His Tyr Asp Ser Thr Glu Trp Asn
        275                 280                 285

tgg atc aga ggg gcg ttg tca gca atc gat agg gac ttt ggg ttc atg        912
Trp Ile Arg Gly Ala Leu Ser Ala Ile Asp Arg Asp Phe Gly Phe Met
    290                 295         .       300

aat agt gtt ttc cat gat gtt aca cac act cac gtc atg cat cat atg        960
Asn Ser Val Phe His Asp Val Thr His Thr His Val Met His His Met
305                 310                 315                 320

ttt tca tac att cca cac tat cat gcg aaa gag gca agg gat gca atc       1008
Phe Ser Tyr Ile Pro His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile
                325                 330                 335

aat aca atc ata ggc gac tat tat atg atc gat agg act cca att ttg       1056
Asn Thr Ile Ile Gly Asp Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu
                340                 345                 350

aaa gca ctg tgg aga gag gcc aag gaa tgc atg tac atc gag cct gat       1104
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp
            355                 360                 365
```

```
agc aag cgc aaa ggt gtt tat tgg tat cat aaa ttg tga                1143
Ser Lys Arg Lys Gly Val Tyr Trp Tyr His Lys Leu
    370                 375                 380
```

<210> 13
<211> 387
<212> PRT
<213> Ricinus communis

<400> 13

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Met Gly Gly Gly Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1               5                10                  15
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
            20              25                  30
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
        35              40                  45
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50              55                  60
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65              70                  75                  80
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85                  90                  95
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100             105                 110
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115             120                 125
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130             135                 140
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145             150                 155                 160
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180             185                 190
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195             200                 205
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210             215                 220
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225             230                 235                 240
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260             265                 270
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
    275             280                 285
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290             295                 300
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305             310                 315                 320
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340             345                 350
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
        355             360                 365
```

Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370   375   380
Asn Lys Tyr
385

<210> 14
<211> 384
<212> PRT
<213> Lesquerella fendleri

<400> 14
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
1   5   10   15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20   25   30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35   40   45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50   55   60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65   70   75   80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
            85   90   95
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
            100   105   110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
        115   120   125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130   135   140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145   150   155   160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165   170   175
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
            180   185   190
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
        195   200   205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210   215   220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225   230   235   240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
            245   250   255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260   265   270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
    275   280   285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290   295   300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305   310   315   320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325   330   335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340   345   350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
    355   360   365

```
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370             375             380
```

<210> 15
<211> 383
<212> PRT
<213> Lesquerella lindheimeri

<400> 15
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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1           5               10              15
Lys Pro Glu Ala Leu Arg Arg Gly Pro Gly Glu Lys Pro Pro Phe Thr
        20              25              30
Val Gln Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
        35              40              45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
    50              55              60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65              70              75              80
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
            85              90              95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
            100             105             110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
        115             120             125
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130             135             140
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145             150             155             160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165             170             175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180             185             190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
        195             200             205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210             215             220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
            245             250             255
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260             265             270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
    275             280             285
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
    290             295             300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305             310             315             320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325             330             335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340             345             350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
        355             360             365
Asp Thr Glu Lys Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370             375             380
```

```
<210> 16
<211> 384
<212> PRT
<213> Lesquerella gracilis A

<400> 16
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                  10                  15
Lys Pro Gln Ala Leu Arg Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
            35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
            115                 120                 125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165                 170                 175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
            195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
    210                 215                 220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
            245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
    275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
            325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
            340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
            355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380

<210> 17
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<211> 384
<212> PRT
<213> Lesquerella gracilis B

<400> 17

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Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
            35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
            115                 120                 125
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                 170                 175
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180                 185                 190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
            195                 200                 205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                 215                 220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                 230                 235                 240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                 250                 255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
            260                 265                 270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
            275                 280                 285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
            290                 295                 300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                 310                 315                 320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                 330                 335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340                 345                 350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
            355                 360                 365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                 375                 380
```

<210> 18
<211> 374
<212> PRT

<213> Crepis biennis

<400> 18
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Met Gly Ala His Gly His Gly Arg Thr Ser Lys Lys Ser Val Met Glu
 1               5                  10                  15
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
            20                  25                  30
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
            35                  40                  45
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
    50                  55                  60
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
65                  70                  75                  80
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
            85                  90                  95
Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
            100                 105                 110
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
            115                 120                 125
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
    130                 135                 140
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
            165                 170                 175
Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
            180                 185                 190
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
            195                 200                 205
Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
    210                 215                 220
Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
225                 230                 235                 240
Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
            245                 250                 255
Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
            260                 265                 270
Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
    275                 280                 285
Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
    290                 295                 300
Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
305                 310                 315                 320
Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
            325                 330                 335
Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
            340                 345                 350
Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
            355                 360                 365
Tyr Trp Tyr His Lys Leu
    370
```

<210> 19
<211> 383
<212> PRT
<213> Ricinus communis

<400> 19
```
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
1               5                   10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
            20                  25                  30
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Glu Arg Ser
            35                  40                  45
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
    50                  55                  60
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
65                  70                  75                  80
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                85                  90                  95
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
            100                 105                 110
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
    115                 120                 125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
            165                 170                 175
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
            180                 185                 190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
    195                 200                 205
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
    210                 215                 220
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225                 230                 235                 240
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
            245                 250                 255
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
            260                 265                 270
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
    275                 280                 285
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
    290                 295                 300
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305                 310                 315                 320
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
            325                 330                 335
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
            340                 345                 350
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
    355                 360                 365
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
    370                 375                 380
```

<210> 20
<211> 384
<212> PRT
<213> Lesquerella fendleri

<400> 20
```
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
```

```
 1                   5                        10                    15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
                20                      25                    30
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
                35                      40                    45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                      55                    60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                      70                    75                    80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                      90                    95
Val Leu Thr Gly Ile Trp Val Ile Gly His Glu Cys Gly His His Ala
                100                     105                   110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Phe His
    115                     120                   125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                     135                   140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                     150                   155                   160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                     170                   175
Leu Gly Arg Ile Leu Val Leu Thr Val Gln Phe Ile Leu Gly Trp Pro
                180                     185                   190
Leu Tyr Leu Pro Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
                195                     200                   205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
    210                     215                   220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                     230                   235                   240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                     250                   255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
                260                     265                   270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
                275                     280                   285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
    290                     295                   300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                     310                   315                   320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                     330                   335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340                     345                   350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
                355                     360                   365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                     375                   380
```

<210> 21
<211> 383
<212> PRT
<213> Lesquerella lindheimeri

<400> 21
```
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1                   5                        10                    15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
```

```
                  20                      25                      30
Val Gly Asp Leu Arg Lys Ala Ile Pro Arg His Cys Phe Lys Arg Ser
          35                      40                      45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Ile Leu Ala Ser
          50                      55                      60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                      70                      75                      80
Leu Ser Thr Tyr Phe Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                  85                      90                      95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His Gln Ala
                  100                     105                     110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
                  115                     120                     125
Thr Phe Leu Leu Ile Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
          130                     135                     140
His His Ala Asn Asn Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro
145                     150                     155                     160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                  165                     170                     175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
                  180                     185                     190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Ser Tyr Asp Gly Phe Ala
                  195                     200                     205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
          210                     215                     220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                     230                     235                     240
Tyr Arg Tyr Ala Ala Thr Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                  245                     250                     255
Gly Val Pro Pro Leu Val Val Asn Phe Phe Leu Val Leu Val Thr Phe
                  260                     265                     270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
          275                     280                     285
Asp Trp Ile Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Ile
          290                     295                     300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                     310                     315                     320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                  325                     330                     335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                  340                     345                     350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Gln Cys Leu Tyr Val Glu Gln
          355                     360                     365
Asp Thr Glu Lys Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
          370                     375                     380
```

```
<210> 22
<211> 384
<212> PRT
<213> Lesquerella gracilis A

<400> 22
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
1                       5                       10                      15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
                  20                      25                      30
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
```

```
            35                          40                          45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Phe Ile Leu Ala Ser
     50                          55                          60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
 65                          70                          75                          80
Val Ser Asn Tyr Leu Ala Trp Pro Leu Tyr Trp Ile Cys Gln Gly Cys
                     85                          90                          95
Val Leu Thr Gly Val Trp Val Leu Gly His Glu Cys Gly His His Ala
                100                         105                         110
Phe Ser Asp Tyr Gln Trp Val Asp Asp Thr Val Gly Phe Ile Ile His
                115                         120                         125
Ser Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
     130                         135                         140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                         150                         155                         160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                         170                         175
Leu Gly Arg Thr Val Val Leu Ile Val Gln Phe Val Leu Gly Trp Pro
                180                         185                         190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
                195                         200                         205
Ser His Phe Phe Pro His Ala Pro Ile Phe Arg Asp Arg Glu Arg Leu
     210                         215                         220
His Ile Tyr Ile Thr Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                         230                         235                         240
Tyr Arg Tyr Ala Ala Ser Lys Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                         250                         255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
                260                         265                         270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
     275                         280                         285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
     290                         295                         300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                         310                         315                         320
Ile Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                         330                         335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340                         345                         350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Gln
     355                         360                         365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
     370                         375                         380
```

```
<210> 23
<211> 384
<212> PRT
<213> Lesquerella gracilis B

<400> 23
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                          10                          15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
                20                          25                          30
Val Gly Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
                35                          40                          45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
```

```
        50                      55                      60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                      70                      75                      80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                      90                      95
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
                100                     105                     110
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
                115                     120                     125
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
                130                     135                     140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                     150                     155                     160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                165                     170                     175
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
                180                     185                     190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
                195                     200                     205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
                210                     215                     220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                     230                     235                     240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245                     250                     255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
                260                     265                     270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
                275                     280                     285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
                290                     295                     300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                     310                     315                     320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325                     330                     335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340                     345                     350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
                355                     360                     365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
                370                     375                     380
```

<210> 24
<211> 380
<212> PRT
<213> Crepis biennis

<400> 24

```
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
1                       5                       10                      15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
                20                      25                      30
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Gln Arg Ser
                35                      40                      45
Val Ile Arg Ser Ser Tyr Tyr Val Val His Asp Leu Ile Ile Ala Tyr
        50                      55                      60
Ile Phe Tyr Phe Leu Ala Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro
```

```
65                       70                      75                      80
Leu Ala Tyr Leu Ala Trp Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile
                85                      90                      95
Leu Thr Gly Leu Trp Ile Leu Gly His Glu Cys Gly His His Ala Phe
            100                     105                     110
Ser Glu His Gln Trp Val Asp Asp Thr Val Gly Phe Met Val His Ser
            115                     120                     125
Phe Leu Leu Thr Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His
        130                     135                     140
His Ala Asn Thr Ser Ser Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys
145                     150                     155                     160
Ser Lys Ser Lys Leu Ala Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro
                165                     170                     175
Gly Arg Leu Leu Val Met Val Ile Met Phe Thr Leu Gly Phe Pro Leu
            180                     185                     190
Tyr Leu Leu Thr Asn Ile Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn
            195                     200                     205
His Phe Asp Pro Met Ser Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln
        210                     215                     220
Val Leu Leu Ser Asp Leu Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys
225                     230                     235                     240
Val Ala Val Ala Lys Lys Gly Ala Ala Trp Val Ala Cys Met Tyr Gly
                245                     250                     255
Val Pro Met Leu Gly Val Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu
            260                     265                     270
His His Thr His Gln Ser Ser Pro His Tyr Asp Ser Thr Glu Trp Asn
            275                     280                     285
Trp Ile Arg Gly Ala Leu Ser Ala Ile Asp Arg Asp Phe Gly Phe Met
        290                     295                     300
Asn Ser Val Phe His Asp Val Thr His Thr His Val Met His His Met
305                     310                     315                     320
Phe Ser Tyr Ile Pro His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile
                325                     330                     335
Asn Thr Ile Ile Gly Asp Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu
            340                     345                     350
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp
            355                     360                     365
Ser Lys Arg Lys Gly Val Tyr Trp Tyr His Lys Leu
    370                     375                     380
```

```
<210> 25
<211> 1152
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1149)

<400> 25
atg gga ggt ggt ggt cgc atg tct act gtc ata acc agc aac aac agt      48
Met Gly Gly Gly Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
1               5                   10                  15


gag agc agc cac ctt aag cga gcg ccg cac acg aag cct cct ttc aca      96
Glu Ser Ser His Leu Lys Arg Ala Pro His Thr Lys Pro Pro Phe Thr
                20                  25                  30
```

```
ctt ggt gac ctc aag aga gcc atc cca ccc cat tgc ttt gaa cgc tct     144
Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys Phe Glu Arg Ser
            35              40                  45

ttt gtg cgc tca ttc tcc tat gtt gcc tat gat gtc tgc tta agt ttt     192
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
        50                  55                  60

ctt ttc tac tcg atc gcc acc aac ttc ttc cct tac atc tct tct ccg     240
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
65                  70                  75                  80

ctc tcg tat gtc gct tgg ctg gtt tac tgg ctc ttc caa ggc tgc att     288
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                85                  90                  95

ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc cat cat gct ttt     336
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
                100                 105                 110

agt gag tat cag ctg gct gat gac att gtt ggc cta att gtc cat tct     384
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
            115                 120                 125

gca ctt ctg gtt cca tat ttt tca tgg aaa tat agc cat cgc cgc cac     432
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
    130                 135                 140

cat tct aac ata gga tct ctc gag cga gac gaa gtg ttc gtc ccg aaa     480
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160

tca aag tcg aaa att tca tgg tat tct aag tac tta aac aac ccg cca     528
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                165                 170                 175

ggt cga gtt ttg aca ctt gct gcc acg ctc ctc ctt ggc tgg cct tta     576
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
                180                 185                 190

tac tta gct ttc aat gtc tct ggt aga cct tac gat cgc ttt gct tgc     624
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
                195                 200                 205

cat tat gat ccc tat ggc cca ata ttt tcc gaa aga gaa agg ctt cag     672
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
            210                 215                 220

att tac att gct gac ctc gga atc ttt gcc aca acg ttt gtg ctt tat     720
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225                 230                 235                 240

cag gct aca atg gca aaa ggg ttg gct tgg gta atg cgt atc tat ggg     768
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
                245                 250                 255
```

```
gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg atc aca tac ttg      816
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
            260                 265                 270

cag cac act cac cca gct att cca cgc tat ggc tca tcg gaa tgg gat      864
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
            275                 280                 285

tgg ctc cgg gga gca atg gtg act gtc gat aga gat tat ggg gtg ttg      912
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
            290                 295                 300

aat aaa gta ttc cat aac att gca gac act cat gta gct cat cat ctc      960
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305                 310                 315                 320

ttt gct aca gtg cca cat tac cat gca atg gag gcc act aaa gca atc     1008
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
            325                 330                 335

aag cct ata atg ggt gag tat tac cgg tat gat ggt acc cca ttt tac     1056
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
            340                 345                 350

aag gca ttg tgg agg gag gca aag gag tgc ttg ttc gtc gag cca gat     1104
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
            355                 360                 365

gaa gga gct cct aca caa ggc gtt ttc tgg tac cgg aac aag tat         1149
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
    370                 375                 380

taa                                                                  1152
```

```
<210> 26
<211> 1152
<212> DNA
<213> Lesquerella gracilis B

<220>
<221> CDS
<222> (1)...(1149)

<400> 26
atg ggt gct ggt gga aga ata atg gtt acc cct tct tcc aag aaa tca       48
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
1                 5                   10                  15

gaa act gaa gcc cta aaa cgt gga cca tgt gag aaa cca cca ttc act       96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30

gtt aaa gat ctg aag aaa gca atc cca cag cat tgt ttt caa cgc tct      144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
            35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct      192
```

```
      Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
          50              55              60

      tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct      240
      Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
      65              70              75              80

      ctc tct tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt gtc      288
      Leu Ser Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys Val
                      85              90              95

      cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca ttc      336
      Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala Phe
                  100             105             110

      agt gac tat caa tgg cta gat gac act gtt ggt ttt atc ttc cat tcc      384
      Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His Ser
                  115             120             125

      tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt cac      432
      Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
          130             135             140

      cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca ccg      480
      His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro Pro
      145             150             155             160

      aaa aaa gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct ctt      528
      Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro Leu
                  165             170             175

      gga cgc att ctg gtg tta aca gtt cgg ttt atc ctc ggg tgg cct ttg      576
      Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro Leu
                  180             185             190

      tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct tca      624
      Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala Ser
          195             200             205

      cat ttc ttc cct cat gca cct atc ttt aaa gac cgc gaa cgt ctc cag      672
      His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu Gln
          210             215             220

      ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt tac      720
      Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu Tyr
      225             230             235             240

      cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat gga      768
      Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr Gly
                  245             250             255

      gta ccg ctt ttg ata gtg aac ttt ttc ctt gtc ttg gta act ttc ttg      816
      Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe Leu
                  260             265             270

      cag cac act cat cct tcg tta cct cac tat gat tca acc gag tgg gaa      864
      Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Glu
```

```
                  275                      280                      285
tgg att aga gga gct ttg gtt acg gta gac aga gac tac gga atc ttg      912
Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile Leu
    290                      295                      300

aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat ctt      960
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305                      310                      315                  320

ttc gca act ata ccg cat tat aac gca atg gaa gct aca gag gcg ata     1008
Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala Ile
                325                      330                      335

aag cca ata ctt ggt gat tac tac cat ttc gat gga aca ccg tgg tat     1056
Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp Tyr
                340                      345                      350

gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa ccg gat     1104
Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro Asp
                355                      360                      365

acg gaa cgt ggg aag aaa ggt gtc tac tat tac aac aat aag tta         1149
Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370                      375                      380

tga                                                                  1152
```

```
<210> 27
<211> 1134
<212> DNA
<213> Stokesia laevis

<220>
<221> CDS
<222> (1)...(1131)

<400> 27
atg ggt gca ggt ggt cgg atg tcg gat cta tct gac gga aaa aat ctc       48
Met Gly Ala Gly Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
1                   5                   10                  15

ctc aaa cgt gtg cca gtt gat cca cct ttc aca tta agt gat ata aag       96
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
                20                      25                      30

aaa gca atc cct ccc cat tgc ttc aaa cga tct gtc ata cgt tcg tcc      144
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
                35                      40                      45

tac tat gtt gtt cat gat ctc atc gtc tcc tac gtc ttc ttc ttc ctc      192
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50                      55                      60

gca acg aca tat att act gtt ctt cct gct cct ctt gct tac ata gcg      240
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65                      70                      75                  80
```

```
tgg cca gtt tac tgg ttt tgc caa gca agt att ctc act ggg ttg tgg          288
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                85                      90                  95

gtt atc ggc cat gaa tgt ggt cac cat gcc ttt agt gaa tac cag tgg          336
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100             105             110

att gat gac aca gtt ggg ttc atc ctc cac tcg gct ctc ctc acc cct          384
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
            115             120             125

tac ttc tct tgg aaa tat agc cat cga aat cac cat gcg aac aca aat          432
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130             135             140

tca ctc gac aac gac gaa gtt tac att cct aag cgc aag tcc aaa gtc          480
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145             150             155             160

aag att tac tcc aaa atc cta aac aac cca cct gga cga gtg ttc act          528
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165             170             175

ttg gtt ttc agg ttg acg cta ggg ttt cct ttg tac ctg tta act aat          576
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180             185             190

atc tct gga aag aaa tac caa cgg ttt gcc aac cac ttt gat cca ttg          624
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
            195             200             205

agt ccc atc ttc acc gag cgt gaa cga att cag gtt ctt gta tca gat          672
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210             215             220

ctt ggt ctt cta gct gta atc tac gca atc aag ctt ctt gtt gct gca          720
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225             230             235             240

aaa gga gct gtc tgg gtg aca tgc atc tat gga gtt cca gtc cta ggt          768
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
            245             250             255

gta agc gtg ttc ttc gtt ttg atc acg tat tta cac cac acc cat ctc          816
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260             265             270

tcc tta cct cat tac gat tcg act gag tgg aac tgg atc aga ggg gca          864
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
    275             280             285

ttg tca acc atc gat agg gat ttt ggg ttc cta aat agg gtt ttc cat          912
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290             295             300
```

```
gac gtt aca cac act cat gta ttg cat cat ttg atc tct tac att cca        960
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305             310             315             320

cac tat cat gca aag gag gca aga gat gca atc aaa cca gtt ttg ggt       1008
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
            325             330             335

gat tat tat aag att gat agg act ccg ata ttc aaa gca atg tgg aga       1056
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340             345             350

gag gcc aag gaa tgc atc tat atc gag cca gat gaa gat act gaa cac       1104
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
            355             360             365

aag ggt gtt tac tgg tac cat aaa atg tga                               1134
Lys Gly Val Tyr Trp Tyr His Lys Met
        370             375
```

<210> 28
<211> 1164
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1161)

<400> 28

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atg gct tcc tcc gga aga atg tct act gtg att act tct aac aac tct        48
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
1               5               10              15

gag aag aag gga ggt tct tct cat ctt aag aga gct cca cat act aag        96
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
            20              25              30

cca cct ttc act ctt gga gac ctt aag aga gct att cca cct cat tgt       144
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
            35              40              45

ttc gag aga tct ttc gtg aga tct ttc tct tat gtg gct tat gac gtg       192
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
        50              55              60

tgt ctt tct ttc ctt ttc tat tct att gct act aac ttc ttc cca tat       240
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65              70              75              80

att tct tct cca ctt tct tat gtg gct tgg ctt gtg tat tgg ctt ttc       288
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
            85              90              95

caa gga tgt att ctt act gga ctt tgg gtt att ggt cat gag tgt ggt       336
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100             105             110
```

```
cat cat gca ttt tct gaa tat caa ctt gct gac gac att gtg gga ctt      384
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120                 125

att gtg cat tct gct ctt ttg gtg cca tat ttc tct tgg aag tat tct      432
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
        130                 135                 140

cat aga aga cat cat tct aac att gga tct ctt gag aga gac gag gtg      480
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160

ttt gtg cct aag tct aag tct aag att tct tgg tat tct aag tat ctt      528
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175

aac aac cca cct gga aga gtg ctt act ctt gct gca act ctt ttg ctt      576
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
                180                 185                 190

gga tgg cca ctt tat ctt gct ttc aac gtg tct gga aga cca tat gac      624
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
                195                 200                 205

aga ttc gct tgt cat tat gac cca tat gga cca att ttc tct gag aga      672
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
        210                 215                 220

gag aga ctt caa atc tat att gct gac ctt gga att ttc gct act act      720
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240

ttc gtg ctt tat caa gct act atg gct aag gga ctt gct tgg gtt atg      768
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255

aga atc tat gga gtg cca ctt ttg att gtg aac tgt ttc ctt gtg atg      816
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
                260                 265                 270

att act tat ctt caa cat act cat cca gct att cca aga tat gga tct      864
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
                275                 280                 285

tct gaa tgg gat tgg ctt aga gga gct atg gtg act gtg gac aga gac      912
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
        290                 295                 300

tat gga gtg ctt aac aag gtg ttc cat aac att gct gac act cat gtg      960
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320

gct cat cat ctt ttc gct act gtg cca cat tat cat gct atg gag gct     1008
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335
```

```
act aag gct att aag cca att atg gga gag tat tat aga tat gac gga        1056
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340             345             350

act cca ttc tat aag gct ctt tgg aga gag gct aag gag tgt ctt ttc        1104
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
            355             360             365

gtt gaa cca gat gaa gga gct cca act caa gga gtg ttc tgg tat aga        1152
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370             375             380

aac aag tat taa                                                        1164
Asn Lys Tyr
385
```

<210> 29
<211> 1134
<212> DNA
<213> Stokesia laevis

<220>
<221> CDS
<222> (1)...(1131)

<400> 29

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atg gct tcc tcc gga aga atg tct gac ctt tct gac gga aag aac ctt          48
Met Ala Ser Ser Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
 1               5               10              15

ttg aag aga gtg cca gtg gac cca cct ttc act ctt tct gac att aag          96
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
            20              25              30

aag gct att cca cct cat tgt ttc aag aga tct gtg att aga tct tct         144
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
            35              40              45

tat tat gtg gtg cat gac ctt att gtg tct tat gtg ttc ttc ttc ctt         192
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50              55              60

gct act act tat att act gtg ctt cca gct cca ctt gct tat att gct         240
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65              70              75              80

tgg cca gtg tat tgg ttc tgt caa gct tct att ctt act gga ctt tgg         288
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                85              90              95

gtt att gga cat gag tgt gga cat cat gct ttc tct gag tat caa tgg         336
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100             105             110

att gac gac act gtg gga ttc att ctt cat tct gct ctt ttg act cca         384
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
            115             120             125
```

```
tat ttc tct tgg aag tat tct cat aga aac cat cat gct aac act aac       432
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135             140

tct ctt gac aac gac gag gtg tat att cca aag aga aag tct aag gtg       480
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150             155                 160

aag atc tat tct aag att ctt aac aac cca cct gga aga gtg ttc act       528
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
            165             170                 175

ctt gtg ttc aga ctt act ctt gga ttc cca ctt tat ctt ttg act aac       576
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180             185                 190

att tct gga aag aag tat caa aga ttc gct aac cat ttc gac cca ctt       624
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
            195             200                 205

tct cca att ttc act gag aga gag aga att caa gtg ctt gtg tct gac       672
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210             215                 220

ctt gga ctt ttg gct gtg atc tat gct att aag ctt ttg gtt gct gca       720
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225             230                 235                 240

aag gga gct gtg tgg gtg act tgt atc tat gga gtt cca gtt ctt gga       768
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255

gtg tct gtg ttc ttc gtg ctt att act tat ctt cat cat act cat ctt       816
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260                 265                 270

tct ctt cca cat tat gac tct act gag tgg aac tgg att aga gga gct       864
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
    275                 280                 285

ctt tct act att gac aga gac ttc gga ttc ctt aac aga gtg ttc cat       912
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300

gac gtg act cat act cat gtg ctt cat cat ctt att tct tat att cca       960
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320

cat tat cat gct aag gag gct aga gac gct att aag cca gtg ctt gga      1008
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335

gac tat tat aag att gac aga act cca atc ttt aag gct atg tgg aga      1056
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340                 345                 350
```

```
gag gct aag gag tgt atc tat att gaa cca gac gaa gac act gag cat      1104
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355             360             365

aag gga gtg tat tgg tat cat aag atg taa                             1134
Lys Gly Val Tyr Trp Tyr His Lys Met
    370             375
```

<210> 30
<211> 1164
<212> DNA
<213> Ricinus communis

<220>
<221> CDS
<222> (1)...(1161)

<400> 30
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atg gct tcc tcc ggt agg atg tct act gtc ata acc agc aac aac agt      48
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
 1               5               10              15

gag aag aaa gga gga agc agt cac ctt aag agg gct cca cac act aag      96
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
            20              25              30

cct cct ttc aca ctt ggt gac ctc aag aga gcc atc cca ccc cat tgc     144
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
        35              40              45

ttt gaa agg tct ttt gtg aga tca ttc tcc tat gtt gcc tat gat gtc     192
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50              55              60

tgc tta agt ttt ctt ttc tac tct atc gcc acc aac ttc ttc cct tac     240
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65              70              75              80

atc tct tct cca ctc tct tat gtc gct tgg ctg gtt tac tgg ctc ttc     288
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85              90              95

caa ggc tgc att ctc act ggt ctt tgg gtc atc ggc cat gaa tgt ggc     336
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100             105             110

cat cat gct ttt agt gag tat cag ctg gct gat gac att gtt ggc cta     384
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115             120             125

att gtc cat tct gca ctt ctg gtt cca tac ttc tca tgg aaa tat agc     432
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130             135             140

cat aga agg cac cat tct aac ata gga tct ctc gag agg gac gaa gtg     480
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145             150             155             160
```

```
ttc gtc cca aaa tca aag tct aaa att tca tgg tat tct aag tac tta      528
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165             170             175

aac aac cct cca ggt agg gtt ttg aca ctt gct gcc act ctt ctc ctt      576
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
                180             185             190

ggc tgg cct tta tac tta gct ttc aat gtc tct ggt aga cct tac gat      624
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
                195             200             205

agg ttt gct tgc cat tat gat ccc tat ggc cca ata ttt tcc gaa aga      672
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
        210             215             220

gaa agg ctt cag atc tac att gct gac ctc gga atc ttt gcc aca act      720
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225             230             235             240

ttt gtg ctt tat cag gct aca atg gca aaa ggg ttg gct tgg gta atg      768
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245             250             255

agg atc tat ggg gtg cca ttg ctt att gtt aac tgt ttc ctt gtt atg      816
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
                260             265             270

atc aca tac ttg cag cac act cac cca gct att cca agg tat ggc tca      864
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
                275             280             285

tct gaa tgg gat tgg ctc agg gga gca atg gtg act gtc gat aga gat      912
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
        290             295             300

tat ggg gtg ttg aac aag gta ttc cat aac att gca gac act cat gta      960
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305             310             315             320

gct cat cat ctc ttt gct aca gtg cca cat tac cat gca atg gag gcc     1008
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325             330             335

act aaa gca atc aag cct ata atg gga gag tat tac agg tat gat ggt     1056
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
                340             345             350

acc cca ttt tac aag gca ttg tgg agg gag gca aag gag tgc ttg ttc     1104
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
                355             360             365

gtc gag cca gat gaa gga gct cct aca caa ggc gtt ttc tgg tac agg     1152
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
                370             375             380
```

```
aac aag tat taa                                                    1164
Asn Lys Tyr
385


<210> 31
<211> 1155
<212> DNA
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<221> CDS
<222> (1)...(1152)

<400> 31
atg gct tcc tcc gga aga atc atg gtt act cct tct tcc aag aag tca     48
Met Ala Ser Ser Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
1               5                   10                  15

gaa act gaa gcc cta aag cgt gga cca tgt gag aaa cca cca ttc act     96
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
            20                  25                  30

gtt aaa gat ctg aag aag gca atc cca cag cat tgt ttc caa aga tct    144
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45

atc cct cgt tct ttc tcc tac ctt ctc aca gat atc act tta gtt tct    192
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60

tgc ttc tac tac gtt gcc aca aat tac ttc tct ctt ctt cct cag cct    240
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80

ctc tct act tac cta gct tgg cct ctc tat tgg gta tgt caa ggc tgt    288
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95

gtc cta aca ggt atc tgg gtc ctt ggc cat gaa tgt ggt cac cat gca    336
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
            100                 105                 110

ttc agt gac tat caa tgg cta gat gac act gtt ggt ttc atc ttc cat    384
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
        115                 120                 125

tcc tta ctt ctc gtc cct tac ttc tcc tgg aaa tac agt cat cgt cgt    432
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
    130                 135                 140

cac cat tcc aac aat gga tct ctc gag aaa gat gaa gtc ttt gtc cca    480
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                 150                 155                 160

cca aag aag gct gca gtc aaa tgg tat gtt aaa tac ctc aac aac cct    528
```

```
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
            165             170             175
```

```
ctt gga agg att ctg gtg tta aca gtt agg ttt atc ctc ggg tgg cct      576
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
            180             185             190
```

```
ttg tat cta gcc ttt aat gta tca ggt aga cct tat gat ggt ttc gct      624
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
            195             200             205
```

```
tca cat ttc ttc cct cat gca cct atc ttt aaa gac agg gaa cgt ctc      672
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
            210             215             220
```

```
cag ata tac atc tca gat gct ggt att cta gct gtc tgt tat ggt ctt      720
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225             230             235             240
```

```
tac cgt tac gct gct tca caa gga ttg acc gct atg atc tgc gtc tat      768
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
                245             250             255
```

```
gga gta cct ctt ttg ata gtg aac ttc ttc ctt gtc ttg gta act ttc      816
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
                260             265             270
```

```
ttg cag cac act cat cct tct tta cct cac tat gat tca acc gag tgg      864
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
            275             280             285
```

```
gaa tgg att aga gga gct ttg gtt act gta gac aga gac tac gga atc      912
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
            290             295             300
```

```
ttg aac aag gtg ttt cac aac ata aca gac aca cat gtg gct cat cat      960
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305             310             315             320
```

```
ttg ttc gca act ata cct cat tat aac gca atg gaa gct aca gag gct     1008
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
                325             330             335
```

```
atc aag cca ata ctt ggt gat tac tac cat ttc gat gga aca cct tgg     1056
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
                340             345             350
```

```
tat gtg gct atg tat agg gaa gca aag gag tgt ctc tat gta gaa cct     1104
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
                355             360             365
```

```
gat act gaa cgt ggg aag aag ggt gtc tac tat tac aac aat aag tta     1152
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
            370             375             380
```

```
taa                                                                  1155
```

<210> 32
<211> 1125
<212> DNA
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<221> CDS
<222> (1)...(1122)

<400> 32

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atg gct tcc tcc ggc cat agt cga aca tct aag aag tct gtc atg gaa      48
Met Ala Ser Ser Gly His Ser Arg Thr Ser Lys Lys Ser Val Met Glu
1               5                   10                  15

cgt gtc tct gtt gat cca gta ccc ttc tct cta agt gat ttg aag caa      96
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
                20                  25                  30

gca atc cct ccc cat tgc ttc cag cga tct gtc atc cgt tca tct tac     144
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
            35                  40                  45

tat gta gtt cac gat ctc att att gcc tac atc ttc tac ttc ctt gcc     192
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
        50                  55                  60

gac aaa tac att cca att ctc cct gct cct cta gcc tac tta gct tgg     240
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
65                  70                  75                  80

ccc ctt tac tgg ttc tgt caa gct agc atc ctc act ggt tta tgg atc     288
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
                85                  90                  95

ctc ggt cat gaa tgc ggt cac cat gcc ttt agc gag tac caa tgg gtt     336
Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
                100                 105                 110

gac gac act gtg ggc ttc atg gtc cac tca ttt ctt ctc act cct tac     384
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
            115                 120                 125

ttc tct tgg aaa tac agt cac agg aat cac cat gcc aac aca agt tcc     432
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
        130                 135                 140

att gat aac gat gaa gtt tac att cct aag agc aag tcc aaa ctc gct     480
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160

ctt acc tat aag ctt ctt aac aac cct cca gga agg ctg tta gtt atg     528
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
                165                 170                 175

gtt atc atg ttc acc cta gga ttt cct tta tac ctc ttg aca aat att     576
```

```
Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
        180                 185                 190
```

```
tcc ggc aag aag tac gac agg ttt gcc aac cac ttc gac ccc atg agt      624
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
        195                 200                 205
```

```
cca att ttc aag gaa cgt gag agg ttt cag gtc ttg ctt tct gat ctt      672
Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
        210                 215                 220
```

```
ggc ctt ctt gct gtg ttt tat gga atc aaa gtt gct gta gca aag aag      720
Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
225                 230                 235                 240
```

```
gga gct gct tgg gtg gct tgt atg tat gga gtt cca atg cta ggc gta      768
Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
                245                 250                 255
```

```
ttc acc ctt ttc gat atc atc act tac ttg cac cac acc cat cag tca      816
Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
                260                 265                 270
```

```
tct cct cat tat gac tca act gaa tgg aac tgg atc aga gga gct ttg      864
Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
        275                 280                 285
```

```
tca gca atc gat agg gac ttt ggg ttc atg aat agt gtc ttc cat gat      912
Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
        290                 295                 300
```

```
gtt aca cac act cac gtc atg cat cat atg ttc tca tac att cca cac      960
Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
305                 310                 315                 320
```

```
tat cat gct aag gag gca agg gat gca atc aat aca atc ata ggc gac     1008
Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
                325                 330                 335
```

```
tat tat atg atc gat agg act cca att ttg aaa gca ctg tgg aga gag     1056
Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
                340                 345                 350
```

```
gcc aag gaa tgc atg tac atc gag cct gat agc aag agg aag ggt gta     1104
Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
                355                 360                 365
```

```
tat tgg tac cat aaa ttg taa                                         1125
Tyr Trp Tyr His Lys Leu
        370
```

```
<210> 33
<211> 1134
<212> DNA
<213> Stokesia laevis

<220>
```

```
<221> CDS
<222> (1)...(1131)

<400> 33
atg gct tcc tcc ggt agg atg tct gat ctt tct gac ggt aag aat ctt        48
Met Ala Ser Ser Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
1               5                   10                  15

ctc aaa agg gtg cca gtt gat cca cct ttc aca tta agt gat ata aag        96
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
                20                  25                  30

aaa gca atc cct ccc cat tgc ttc aaa agg tct gtc ata agg tct tca       144
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
            35                  40                  45

tac tat gtt gtt cat gat ctc atc gtc tcc tac gtc ttc ttc ttc ctc       192
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
        50                  55                  60

gca act aca tat att act gtt ctt cct gct cct ctt gct tac ata gct       240
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65                  70                  75                  80

tgg cca gtt tac tgg ttt tgc caa gca agt att ctc act ggg ttg tgg       288
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                85                  90                  95

gtt atc ggc cat gaa tgt ggt cac cat gcc ttt agt gaa tac cag tgg       336
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
                100                 105                 110

att gat gac aca gtt ggg ttc atc ctc cac tct gct ctt ctc acc cct       384
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
            115                 120                 125

tac ttc tct tgg aaa tat agc cat agg aat cac cat gct aac aca aat       432
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140

tca ctc gac aac gac gaa gtt tac att cct aag agg aag tcc aaa gtc       480
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160

aag atc tac tcc aaa atc cta aac aac cca cct gga agg gtg ttc act       528
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175

ttg gtt ttc agg ttg act cta ggg ttt cct ttg tac ctg tta act aat       576
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
                180                 185                 190

atc tct gga aag aaa tac caa agg ttt gcc aac cac ttt gat cca ttg       624
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
            195                 200                 205

agt ccc atc ttc acc gag agg gaa agg att cag gtt ctt gta tca gat       672
```

```
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220

ctt ggt ctt cta gct gta atc tac gca atc aag ctt ctt gtt gct gca      720
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240

aaa gga gct gtc tgg gtg aca tgc atc tat gga gtt cca gtc cta ggt      768
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255

gta agc gtg ttc ttc gtt ttg atc act tac ttg cac cac acc cat ctt      816
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
                260                 265                 270

tcc ttg cct cat tac gat tct act gag tgg aac tgg atc aga ggg gca      864
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
            275                 280                 285

ttg tca acc atc gat agg gat ttt ggg ttc cta aat agg gtt ttc cat      912
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
        290                 295                 300

gac gtt aca cac act cat gta ttg cat cat ttg atc tct tac att cca      960
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320

cac tat cat gca aag gag gca aga gat gca atc aaa cca gtt ttg ggt     1008
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335

gat tat tat aag att gat agg act cct ata ttc aaa gca atg tgg aga     1056
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
                340                 345                 350

gag gcc aag gaa tgc atc tat atc gag cca gat gaa gat act gaa cac     1104
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355                 360                 365

aag ggt gtt tac tgg tac cat aaa atg taa                             1134
Lys Gly Val Tyr Trp Tyr His Lys Met
370                 375
```

<210> 34
<211> 383
<212> PRT
<213> Ricinus communis

<400> 34

```
Met Gly Gly Gly Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
1               5                   10                  15
Glu Ser Ser His Leu Lys Arg Ala Pro His Thr Lys Pro Pro Phe Thr
            20                  25                  30
Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys Phe Glu Arg Ser
        35                  40                  45
Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val Cys Leu Ser Phe
    50                  55                  60
```

```
Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr Ile Ser Ser Pro
65                  70                  75                  80
Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe Gln Gly Cys Ile
                85                  90                  95
Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly His His Ala Phe
                100                 105                 110
Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu Ile Val His Ser
                115                 120                 125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
        130             135                 140
His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                 150                 155                 160
Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                165                 170                 175
Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu Gly Trp Pro Leu
                180                 185                 190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
        195                 200                 205
His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg Glu Arg Leu Gln
        210                 215                 220
Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr Phe Val Leu Tyr
225                 230                 235                 240
Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met Arg Ile Tyr Gly
                245                 250                 255
Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met Ile Thr Tyr Leu
                260                 265                 270
Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser Ser Glu Trp Asp
        275                 280                 285
Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp Tyr Gly Val Leu
    290                 295                 300
Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val Ala His His Leu
305                 310                 315                 320
Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                 330                 335
Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly Thr Pro Phe Tyr
                340                 345                 350
Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe Val Glu Pro Asp
        355                 360                 365
Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg Asn Lys Tyr
    370                 375                 380
```

```
<210> 35
<211> 383
<212> PRT
<213> Lesquerella gracilis B
```

```
<400> 35
Met Gly Ala Gly Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
                20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
        35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
```

```
Leu Ser Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys Val
            85              90              95
Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala Phe
            100             105             110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His Ser
            115             120             125
Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
            130             135             140
His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro Pro
145             150             155             160
Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro Leu
            165             170             175
Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro Leu
            180             185             190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala Ser
            195             200             205
His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu Gln
    210             215             220
Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu Tyr
225             230             235             240
Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr Gly
            245             250             255
Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe Leu
            260             265             270
Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Glu
            275             280             285
Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile Leu
    290             295             300
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305             310             315             320
Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala Ile
            325             330             335
Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp Tyr
            340             345             350
Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro Asp
            355             360             365
Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
    370             375             380
```

```
<210> 36
<211> 377
<212> PRT
<213> Stokesia laevis
```

```
<400> 36
Met Gly Ala Gly Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
  1             5               10              15
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
            20              25              30
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
            35              40              45
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50              55              60
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65              70              75              80
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
            85              90              95
```

```
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100                 105                 110
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
            115                 120                 125
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
            130                 135                 140
Ser Leu Asp Asn.Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
            195                 200                 205
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
                260                 265                 270
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
            275                 280                 285
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
                340                 345                 350
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
                355                 360                 365
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375
```

<210> 37
<211> 387
<212> PRT
<213> Ricinus communis

<400> 37
```
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
  1                 5                  10                  15
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
                20                  25                  30
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
            35                  40                  45
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50                  55                  60
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65                  70                  75                  80
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85                  90                  95
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
            100                 105                 110
```

```
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
        115                 120           ,           125
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130             135             140
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
            165             170                 175
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
            180             185                 190
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
        195             200             205
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210             215             220
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225             230             235                 240
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
            245             250                 255
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
            260             265                 270
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
            275             280             285
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290             295                 300
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305             310             315                 320
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
            325             330             ·     335
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
            340             345             350
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
            355             360             365
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370             375             380
Asn Lys Tyr
385
```

<210> 38
<211> 377
<212> PRT
<213> Stokesia laevis

<400> 38
```
Met Ala Ser Ser Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
  1             5                 10                  15
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
            20             25                 30
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
            35             40                 45
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50             55                 60
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65             70                 75                  80
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
            85             90                 95
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100             105             110
```

```
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
    115                 120                 125
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
            195                 200                 205
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
            260                 265                 270
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
        275                 280                 285
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
                340                 345                 350
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
                355                 360                 365
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375
```

<210> 39
<211> 387
<212> PRT
<213> Ricinus communis

<400> 39

```
Met Ala Ser Ser Gly Arg Met Ser Thr Val Ile Thr Ser Asn Asn Ser
  1             5                 10                  15
Glu Lys Lys Gly Gly Ser Ser His Leu Lys Arg Ala Pro His Thr Lys
                20                  25                  30
Pro Pro Phe Thr Leu Gly Asp Leu Lys Arg Ala Ile Pro Pro His Cys
            35                  40                  45
Phe Glu Arg Ser Phe Val Arg Ser Phe Ser Tyr Val Ala Tyr Asp Val
    50                  55                  60
Cys Leu Ser Phe Leu Phe Tyr Ser Ile Ala Thr Asn Phe Phe Pro Tyr
65                  70                  75                  80
Ile Ser Ser Pro Leu Ser Tyr Val Ala Trp Leu Val Tyr Trp Leu Phe
                85                  90                  95
Gln Gly Cys Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu Cys Gly
                100                 105                 110
His His Ala Phe Ser Glu Tyr Gln Leu Ala Asp Asp Ile Val Gly Leu
            115                 120                 125
```

```
Ile Val His Ser Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser
    130                 135                 140
His Arg Arg His His Ser Asn Ile Gly Ser Leu Glu Arg Asp Glu Val
145                 150                 155                 160
Phe Val Pro Lys Ser Lys Ser Lys Ile Ser Trp Tyr Ser Lys Tyr Leu
                165                 170                 175
Asn Asn Pro Pro Gly Arg Val Leu Thr Leu Ala Ala Thr Leu Leu Leu
                180                 185                 190
Gly Trp Pro Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp
            195                 200                 205
Arg Phe Ala Cys His Tyr Asp Pro Tyr Gly Pro Ile Phe Ser Glu Arg
    210                 215                 220
Glu Arg Leu Gln Ile Tyr Ile Ala Asp Leu Gly Ile Phe Ala Thr Thr
225                 230                 235                 240
Phe Val Leu Tyr Gln Ala Thr Met Ala Lys Gly Leu Ala Trp Val Met
                245                 250                 255
Arg Ile Tyr Gly Val Pro Leu Leu Ile Val Asn Cys Phe Leu Val Met
                260                 265                 270
Ile Thr Tyr Leu Gln His Thr His Pro Ala Ile Pro Arg Tyr Gly Ser
                275                 280                 285
Ser Glu Trp Asp Trp Leu Arg Gly Ala Met Val Thr Val Asp Arg Asp
    290                 295                 300
Tyr Gly Val Leu Asn Lys Val Phe His Asn Ile Ala Asp Thr His Val
305                 310                 315                 320
Ala His His Leu Phe Ala Thr Val Pro His Tyr His Ala Met Glu Ala
                325                 330                 335
Thr Lys Ala Ile Lys Pro Ile Met Gly Glu Tyr Tyr Arg Tyr Asp Gly
                340                 345                 350
Thr Pro Phe Tyr Lys Ala Leu Trp Arg Glu Ala Lys Glu Cys Leu Phe
                355                 360                 365
Val Glu Pro Asp Glu Gly Ala Pro Thr Gln Gly Val Phe Trp Tyr Arg
    370                 375                 380
Asn Lys Tyr
385
```

```
<210> 40
<211> 384
<212> PRT
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<400> 40
Met Ala Ser Ser Gly Arg Ile Met Val Thr Pro Ser Ser Lys Lys Ser
 1               5                   10                  15
Glu Thr Glu Ala Leu Lys Arg Gly Pro Cys Glu Lys Pro Pro Phe Thr
                20                  25                  30
Val Lys Asp Leu Lys Lys Ala Ile Pro Gln His Cys Phe Gln Arg Ser
            35                  40                  45
Ile Pro Arg Ser Phe Ser Tyr Leu Leu Thr Asp Ile Thr Leu Val Ser
    50                  55                  60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                  70                  75                  80
Leu Ser Thr Tyr Leu Ala Trp Pro Leu Tyr Trp Val Cys Gln Gly Cys
                85                  90                  95
Val Leu Thr Gly Ile Trp Val Leu Gly His Glu Cys Gly His His Ala
```

```
                   100                      105                      110
Phe Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Phe Ile Phe His
         115                      120                      125
Ser Leu Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg
     130                      135                      140
His His Ser Asn Asn Gly Ser Leu Glu Lys Asp Glu Val Phe Val Pro
145                      150                      155                      160
Pro Lys Lys Ala Ala Val Lys Trp Tyr Val Lys Tyr Leu Asn Asn Pro
                   165                      170                      175
Leu Gly Arg Ile Leu Val Leu Thr Val Arg Phe Ile Leu Gly Trp Pro
              180                      185                      190
Leu Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala
         195                      200                      205
Ser His Phe Phe Pro His Ala Pro Ile Phe Lys Asp Arg Glu Arg Leu
     210                      215                      220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                      230                      235                      240
Tyr Arg Tyr Ala Ala Ser Gln Gly Leu Thr Ala Met Ile Cys Val Tyr
              245                      250                      255
Gly Val Pro Leu Leu Ile Val Asn Phe Phe Leu Val Leu Val Thr Phe
              260                      265                      270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Thr Glu Trp
         275                      280                      285
Glu Trp Ile Arg Gly Ala Leu Val Thr Val Asp Arg Asp Tyr Gly Ile
     290                      295                      300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                      310                      315                      320
Leu Phe Ala Thr Ile Pro His Tyr Asn Ala Met Glu Ala Thr Glu Ala
              325                      330                      335
Ile Lys Pro Ile Leu Gly Asp Tyr Tyr His Phe Asp Gly Thr Pro Trp
              340                      345                      350
Tyr Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro
         355                      360                      365
Asp Thr Glu Arg Gly Lys Lys Gly Val Tyr Tyr Tyr Asn Asn Lys Leu
     370                      375                      380
```

<210> 41
<211> 374
<212> PRT
<213> Artificial Sequence

<220>
<223> hypothetical sequence

<400> 41
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Met Ala Ser Ser Gly His Ser Arg Thr Ser Lys Lys Ser Val Met Glu
 1               5                       10                      15
Arg Val Ser Val Asp Pro Val Pro Phe Ser Leu Ser Asp Leu Lys Gln
              20                      25                      30
Ala Ile Pro Pro His Cys Phe Gln Arg Ser Val Ile Arg Ser Ser Tyr
         35                      40                      45
Tyr Val Val His Asp Leu Ile Ile Ala Tyr Ile Phe Tyr Phe Leu Ala
     50                      55                      60
Asp Lys Tyr Ile Pro Ile Leu Pro Ala Pro Leu Ala Tyr Leu Ala Trp
65                      70                      75                      80
Pro Leu Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Ile
                   85                      90                      95
```

```
Leu Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp Val
        100                     105                 110
Asp Asp Thr Val Gly Phe Met Val His Ser Phe Leu Leu Thr Pro Tyr
        115                 120                 125
Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Ser Ser
    130                 135                 140
Ile Asp Asn Asp Glu Val Tyr Ile Pro Lys Ser Lys Ser Lys Leu Ala
145                 150                 155                 160
Leu Thr Tyr Lys Leu Leu Asn Asn Pro Pro Gly Arg Leu Leu Val Met
                165                 170                 175
Val Ile Met Phe Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn Ile
            180                 185                 190
Ser Gly Lys Lys Tyr Asp Arg Phe Ala Asn His Phe Asp Pro Met Ser
        195                 200                 205
Pro Ile Phe Lys Glu Arg Glu Arg Phe Gln Val Leu Leu Ser Asp Leu
    210                 215                 220
Gly Leu Leu Ala Val Phe Tyr Gly Ile Lys Val Ala Val Ala Lys Lys
225                 230                 235                 240
Gly Ala Ala Trp Val Ala Cys Met Tyr Gly Val Pro Met Leu Gly Val
                245                 250                 255
Phe Thr Leu Phe Asp Ile Ile Thr Tyr Leu His His Thr His Gln Ser
                260                 265                 270
Ser Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala Leu
        275                 280                 285
Ser Ala Ile Asp Arg Asp Phe Gly Phe Met Asn Ser Val Phe His Asp
    290                 295                 300
Val Thr His Thr His Val Met His His Met Phe Ser Tyr Ile Pro His
305                 310                 315                 320
Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Asn Thr Ile Ile Gly Asp
                325                 330                 335
Tyr Tyr Met Ile Asp Arg Thr Pro Ile Leu Lys Ala Leu Trp Arg Glu
                340                 345                 350
Ala Lys Glu Cys Met Tyr Ile Glu Pro Asp Ser Lys Arg Lys Gly Val
                355                 360                 365
Tyr Trp Tyr His Lys Leu
        370
```

```
<210> 42
<211> 377
<212> PRT
<213> Stokesia laevis
```

```
<400> 42
Met Ala Ser Ser Gly Arg Met Ser Asp Leu Ser Asp Gly Lys Asn Leu
  1             5                  10                  15
Leu Lys Arg Val Pro Val Asp Pro Pro Phe Thr Leu Ser Asp Ile Lys
            20                  25                  30
Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser Val Ile Arg Ser Ser
        35                  40                  45
Tyr Tyr Val Val His Asp Leu Ile Val Ser Tyr Val Phe Phe Phe Leu
    50                  55                  60
Ala Thr Thr Tyr Ile Thr Val Leu Pro Ala Pro Leu Ala Tyr Ile Ala
65                  70                  75                  80
Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp
                85                  90                  95
Val Ile Gly His Glu Cys Gly His His Ala Phe Ser Glu Tyr Gln Trp
            100                 105                 110
```

```
Ile Asp Asp Thr Val Gly Phe Ile Leu His Ser Ala Leu Leu Thr Pro
    115                 120                 125
Tyr Phe Ser Trp Lys Tyr Ser His Arg Asn His His Ala Asn Thr Asn
    130                 135                 140
Ser Leu Asp Asn Asp Glu Val Tyr Ile Pro Lys Arg Lys Ser Lys Val
145                 150                 155                 160
Lys Ile Tyr Ser Lys Ile Leu Asn Asn Pro Pro Gly Arg Val Phe Thr
                165                 170                 175
Leu Val Phe Arg Leu Thr Leu Gly Phe Pro Leu Tyr Leu Leu Thr Asn
            180                 185                 190
Ile Ser Gly Lys Lys Tyr Gln Arg Phe Ala Asn His Phe Asp Pro Leu
        195                 200                 205
Ser Pro Ile Phe Thr Glu Arg Glu Arg Ile Gln Val Leu Val Ser Asp
    210                 215                 220
Leu Gly Leu Leu Ala Val Ile Tyr Ala Ile Lys Leu Leu Val Ala Ala
225                 230                 235                 240
Lys Gly Ala Val Trp Val Thr Cys Ile Tyr Gly Val Pro Val Leu Gly
                245                 250                 255
Val Ser Val Phe Phe Val Leu Ile Thr Tyr Leu His His Thr His Leu
                260                 265                 270
Ser Leu Pro His Tyr Asp Ser Thr Glu Trp Asn Trp Ile Arg Gly Ala
        275                 280                 285
Leu Ser Thr Ile Asp Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His
    290                 295                 300
Asp Val Thr His Thr His Val Leu His His Leu Ile Ser Tyr Ile Pro
305                 310                 315                 320
His Tyr His Ala Lys Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly
                325                 330                 335
Asp Tyr Tyr Lys Ile Asp Arg Thr Pro Ile Phe Lys Ala Met Trp Arg
            340                 345                 350
Glu Ala Lys Glu Cys Ile Tyr Ile Glu Pro Asp Glu Asp Thr Glu His
        355                 360                 365
Lys Gly Val Tyr Trp Tyr His Lys Met
    370                 375
```

<210> 43
<211> 92
<212> DNA
<213> Arabidopsis thaliana

<400> 43
```
agagagagag attctgcgga ggagcttctt cttcgtaggg tgttcatcgt tattaacgtt     60
atcgcccta cgtcagctcc atctccagaa ac                                    92
```

<210> 44
<211> 1222
<212> DNA
<213> Arabidopsis thaliana

<400> 44
```
agagagagag attctgcgga ggagcttctt cttcgtaggg tgttcatcgt tattaacgtt     60
atcgcccta cgtcagctcc atctccaggt ccgtcgcttc tcttccattt cttctcattt    120
tcgattttga ttcttatttc tttccagtag ctcctgctct gtgaatttct ccgctcacga    180
tagatctgct tatactcctt acattcaacc ttagatctgg tctcgattct ctgtttctct    240
gtttttttct tttggtcgag aatctgatgt ttgtttatgt tctgtcacca ttaataataa    300
tgaactctct cattcataca atgattagtt tctctcgtct acaaaacgat atgttgcatt    360
ttcacttttc ttctttttttt ctaagatgat ttgctttgac caatttgttt agatctttat    420
```

```
tctattttat tttctggtgg gttggtggaa attgaaaaaa aaaaaacagc ataaattgtt      480
atttgttaat gtattcattt tttggctatt tgttctgggt aaaaatctgc ttctactatt      540
gaatctttcc tggatttttt actcctattg ggtttttata gtaaaaatac ataataaaag      600
gaaaacaaaa gttttataga ttctcttaaa ccccttacga taaaagttgg aatcaaaata      660
attcaggatc agatgctctt tgattgattc agatgcgatt acagttgcat ggcaaatttt      720
ctagatccgt cgtcacattt tattttctgt ttaaatatct aaatctgata tatgatgtcg      780
acaaattctg gtggcttata catcacttca actgttttct tttggctttg tttgtcaact      840
tggtttttcaa tacgatttgt gatttcgatc gctgaatttt taatacaagc aaactgatgt      900
taaccacaag caagagatgt gacctgcctt attaacatcg tattacttac tactagtcgt      960
attctcaacg caatcgtttt tgtatttctc acattatgcc gcttctctac tctttattcc     1020
ttttggtcca cgcattttct atttgtggca atccctttca caacctgatt tcccactttg     1080
gatcatttgt ctgaagactc tcttgaatcg ttaccacttg tttcttgtgc atgctctgtt     1140
ttttagaatt aatgataaaa ctattccata gtcttgagtt ttcagcttgt tgattctttt     1200
gcttttggtt ttctgcagaa ac                                              1222
```

<210> 45
<211> 222
<212> DNA
<213> Arabidopsis thaliana

<400> 45
```
ggatgatggt gaagaaattg tcgacctttc tcttgtctgt ttgtcttttg ttaaagaagc       60
tatgcttcgt tttaataatc ttattgtcca ttttgttgtg ttatgacatt ttggctgctc      120
attatgttat gtgggaagtt agtgttcaaa tgttttgtgt cggtattgtt cttctcatcg      180
ctgttttgtt gggatcgtag aaatgtgacc ttcggacagt aa                        222
```

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 46
```
atgggaggtg gtggtcgcat g                                                 21
```

<210> 47
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 47
```
ttaatacttg ttccggtacc a                                                 21
```

<210> 48
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 48

```
atgggtgctg gtggaagaat aatg                                          24
```

<210> 49
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 49
```
tcataactta ttgaagtaat agtagacacc ttt                                33
```

<210> 50
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 50
```
tcataactta ttgttgtaat a                                             21
```

<210> 51
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 51
```
gcaatccctc cccattg                                                  17
```

<210> 52
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 52
```
tcacaattta tcataccaat aaacacc                                       27
```

<210> 53
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 53
```
atacaaaagc ttagagagag agattctgcg ga                                 32
```

```
<210> 54
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 54
attcaatgca tgcaacataa tgagcagcca aaa                          33

<210> 55
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 55
attcaataag cttatgggtg caggtggaag aat                          33

<210> 56
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 56
atacaagcat gctcataact tattgttgta cc                           32

<210> 57
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 57
aagcaatggg gtgggatggc tttcttcaga tctcccaccg                   40

<210> 58
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 58
cggtgggaga tctgaagaaa gccatcccac cccattgctt                   40

<210> 59
<211> 26
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<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 59
gtcgacatac ttgttccggt accaga   26

<210> 60
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 60
cgattgcttt cttcagatct cccaccgaga aaggcggtt   39

<210> 61
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 61
aaccgccttt ctcggtggga gatctgaaga aagcaatcc   39

<210> 62
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 62
gtcgactaac ttattgttgt aatagt   26

<210> 63
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 63
gggattgctt tccttagatc tcccaccgag aaaggcggtt   40

<210> 64
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 64
aaccgccttt ctcggtggga gatctaagga aagcaatccc   40

<210> 65
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 65
gtcgactaac ttattgttgt aatagt   26

<210> 66
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 66
aaccgccttt ctcggtggga gatctgaaga aagcaatccc   40

<210> 67
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 67
gggattgctt tcttcagatc tcccaccgag aaaggcggtt   40

<210> 68
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 68
gtcgactcat aacttattgt tgtaat   26

<210> 69
<211> 40
<212> DNA
<213> Artificial Sequence

<220>

<223> primer

<400> 69
cggtgggaga tctgaagaaa gcaatccctc cccattgctt   40

<210> 70
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 70
aagcaatggg gagggattgc tttcttcaga tctcccaccg   40

<210> 71
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 71
gtcgaccaat ttatgatacc aataaa   26

<210> 72
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 72
atacaaaagc ttataatggg aggtggtggt cgcat   35

<210> 73
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 73
atacaaggat ccttaatact tgttccggta cc   32

<210> 74
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 74
atacaagcgg ccgcagcgta atctggaaca tcgt   34

<210> 75
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 75
atacaaaagc ttataatggg tgctggtgga agaat   35

<210> 76
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 76
atacaaggat cctcataact tattgttgta at   32

<210> 77
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 77
atacaaaagc ttataatgta cccatacgat gttcc   35

<210> 78
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 78
atgagagctc gtttaaacga ttttaatgtt tagc   34

<210> 79
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 79
atgagaattc ggccggccaa tagtctcgac   30

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<210> 80
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 80
tcatgaggcg cgccaaagca catacttatc g                              31

<210> 81
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 81
atgagcatgc aagcttcttc gcctggagga gag                            33

<210> 82
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 82
agctatgtac ccatacgatg ttccagatta cgctg                          35

<210> 83
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 83
tcgacagcgt aatctggaac atcgtatggg tacat                          35

<210> 84
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 84
gatccatgta cccaatacga tgttccagat tacgctctcg aggagct             47

<210> 85
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<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 85
ctcgagagcg taatctggaa catcgtatgg gtacatg   37

<210> 86
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 86
atgaggcgcg ccctttctct gacttttaac atcc   34

<210> 87
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 87
actggcatgc gtattgagat tgttttataa tatatg   36

<210> 88
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 88
atacaaaagc ttatgggagg tggtggtcgc at   32

<210> 89
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 89
atacaaggat ccatacttgt tccggtacca ga   32

<210> 90
<211> 32
<212> DNA

<213> Artificial Sequence

<220>
<223> primer

<400> 90
atacaaaagc ttatgggtgc tggtggaaga at   32

<210> 91
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 91
atacaaggat cctaacttat tgttgtaata gt   32

<210> 92
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 92
atacaagtcg acatgggagg tggtggtcgc at   32

<210> 93
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 93
atacaaggat ccatacttgt tccggtacca ga   32

<210> 94
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 94
ataaccagca acaacagtga gagcagccac cttaagcgag c   41

<210> 95
<211> 41
<212> DNA
<213> Artificial Sequence

```
<220>
<223> primer

<400> 95
gctcgcttaa ggtggctgct ctcactgttg ttgctggtta t          41

<210> 96
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 96
ttcttcctca gcctctctct tacctagctt ggcctctcta t          41

<210> 97
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 97
atagagaggc caagctaggt aagagagagg ctgaggaaga a          41

<210> 98
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 98
caattgtcta gattaatact tgttccggta ccag                  34

<210> 99
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 99
aagcttacca tgggaggtgg tggtcg                           26

<210> 100
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> primer
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<400> 100
gaaacagcta tgaccatg   18

<210> 101
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 101
caattgtcta gatcataact tattgttgta atag   34

<210> 102
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 102
aagcttacca tgggtgctgg tggaagaat   29

<210> 103
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 103
caattgtcta gatcacaatt tatgatacca ataaa   35

<210> 104
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 104
atacaaggat ccaaatggga ggtggtggtc gcat   34

<210> 105
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 105

```
atacaaggat ccaaatgggt gctggtggaa gaat                               34
```

<210> 106
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 106
```
aggatcccta ccatgggtgc aggtggtcgg at                                 32
```

<210> 107
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 107
```
tctagattac attttatggt accagtaaa                                     29
```

<210> 108
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 108
```
agatctctac catgggtgcc cacggccatg g                                  31
```

<210> 109
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 109
```
agcttctcga gaccatggcg tacccgtacg acgtgcccga ctacgccag               49
```

<210> 110
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 110
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gatcctggcg tagtcgggca cgtcgtacgg gtacgccatg gtctcgaga              49
```

<210> 111
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 111
atcctcgaga gagattctgc ggaggagctt c   31

<210> 112
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 112
atcggatcca tggttctgca gaaaaccaaa agca   34

<210> 113
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 113
atctctagat gaggatgatg gtgaagaaat tg   32

<210> 114
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 114
atcaagctta ctgtccgaag gtcacatttc   30

<210> 115
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 115
ggaatgcatg tacatcgagc c   21

<210> 116
<211> 21

```
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 116
ggaacttgtg ttggcatggt g                                    21

<210> 117
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 6, 9
<223> n = A,T,C or G

<400> 117
tggccngtnt aytggttytg                                      20

<210> 118
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 6
<223> n = A,T,C or G

<400> 118
tcyttngcyt cyctccacat                                      20

<210> 119
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 119
atgggtgctg gtggtcggat g                                    21

<210> 120
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer
```

```
<400> 120
gaacacgctt acacctagga c                                              21

<210> 121
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 121
atcaatccac tggtattcac                                                20

<210> 122
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 122
gtcctaggtg taagcgtg                                                  18

<210> 123
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 123
aagcttacca tgggtgccca cggccatgg                                      29

<210> 124
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 124
ggcgcgccac catgggtgcc cacggccatg g                                   31

<210> 125
<211> 383
<212> PRT
<213> Arabidopsis thaliana

<400> 125
Met Gly Ala Gly Gly Arg Met Pro Val Pro Thr Ser Ser Lys Lys Ser
 1               5                   10                  15
Glu Thr Asp Thr Thr Lys Arg Val Pro Cys Glu Lys Pro Pro Phe Ser
```

```
                  20                      25                      30
Val Gly Asp Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
              35                      40                      45
Ile Pro Arg Ser Phe Ser Tyr Leu Ile Ser Asp Ile Ile Ile Ala Ser
          50                      55                      60
Cys Phe Tyr Tyr Val Ala Thr Asn Tyr Phe Ser Leu Leu Pro Gln Pro
65                      70                      75                      80
Leu Ser Tyr Leu Ala Trp Pro Leu Tyr Trp Ala Cys Gln Gly Cys Val
                  85                      90                      95
Leu Thr Gly Ile Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
                 100                     105                     110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Leu Ile Phe His Ser
             115                     120                     125
Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
         130                     135                     140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                     150                     155                     160
Gln Lys Ser Ala Ile Lys Trp Tyr Gly Lys Tyr Leu Asn Asn Pro Leu
                 165                     170                     175
Gly Arg Ile Met Met Leu Thr Val Gln Phe Val Leu Gly Trp Pro Leu
                 180                     185                     190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Phe Ala Cys
             195                     200                     205
His Phe Phe Pro Asn Ala Pro Ile Tyr Asn Asp Arg Glu Arg Leu Gln
         210                     215                     220
Ile Tyr Leu Ser Asp Ala Gly Ile Leu Ala Val Cys Phe Gly Leu Tyr
225                     230                     235                     240
Arg Tyr Ala Ala Ala Gln Gly Met Ala Ser Met Ile Cys Leu Tyr Gly
                 245                     250                     255
Val Pro Leu Leu Ile Val Asn Ala Phe Leu Val Leu Ile Thr Tyr Leu
                 260                     265                     270
Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Ser Glu Trp Asp
             275                     280                     285
Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Ile Leu
         290                     295                     300
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305                     310                     315                     320
Phe Ser Thr Met Pro His Tyr Asn Ala Met Glu Ala Thr Lys Ala Ile
                 325                     330                     335
Lys Pro Ile Leu Gly Asp Tyr Tyr Gln Phe Asp Gly Thr Pro Trp Tyr
             340                     345                     350
Val Ala Met Tyr Arg Glu Ala Lys Glu Cys Ile Tyr Val Glu Pro Asp
         355                     360                     365
Arg Glu Gly Asp Lys Lys Gly Val Tyr Trp Tyr Asn Asn Lys Leu
         370                     375                     380
```

<210> 126
<211> 384
<212> PRT
<213> Brassica napus

<400> 126
```
Met Gly Ala Gly Gly Arg Met Gln Val Ser Pro Pro Ser Lys Lys Ser
1                       5                       10                      15
Glu Thr Asp Thr Ile Lys Arg Val Pro Cys Glu Thr Pro Pro Phe Thr
                  20                      25                      30
Val Gly Glu Leu Lys Lys Ala Ile Pro Pro His Cys Phe Lys Arg Ser
```

```
            35                    40                    45
Ile Pro Arg Ser Phe Ser Tyr Leu Ile Trp Asp Ile Ile Ile Ala Ser
    50                    55                    60
Cys Phe Tyr Tyr Val Ala Thr Thr Tyr Phe Pro Leu Leu Pro His Pro
65                    70                    75                    80
Leu Ser Tyr Phe Ala Trp Pro Leu Tyr Trp Ala Cys Gln Gly Cys Val
                85                    90                    95
Leu Thr Gly Val Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
                100                   105                   110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Leu Ile Phe His Ser
            115                   120                   125
Phe Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
        130                   135                   140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                   150                   155                   160
Lys Lys Ser Asp Ile Lys Trp Tyr Gly Lys Tyr Leu Asn Asn Pro Leu
                165                   170                   175
Gly Arg Thr Val Met Leu Thr Val Gln Phe Thr Leu Gly Trp Pro Leu
                180                   185                   190
Tyr Leu Ala Phe Asn Val Ser Gly Arg Pro Tyr Asp Gly Gly Phe Ala
            195                   200                   205
Cys His Phe His Pro Asn Ala Pro Ile Tyr Asn Asp Arg Glu Arg Leu
    210                   215                   220
Gln Ile Tyr Ile Ser Asp Ala Gly Ile Leu Ala Val Cys Tyr Gly Leu
225                   230                   235                   240
Phe Arg Tyr Ala Ala Ala Gln Gly Val Ala Ser Met Val Cys Phe Tyr
                245                   250                   255
Gly Val Pro Leu Leu Ile Val Asn Gly Leu Leu Val Leu Ile Thr Tyr
                260                   265                   270
Leu Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Ser Glu Trp
            275                   280                   285
Asp Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Ile
    290                   295                   300
Leu Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His
305                   310                   315                   320
Leu Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala
                325                   330                   335
Ile Lys Pro Ile Leu Gly Glu Tyr Tyr Gln Phe Asp Gly Thr Pro Val
                340                   345                   350
Val Lys Ala Met Trp Arg Glu Ala Lys Glu Cys Ile Tyr Val Glu Pro
            355                   360                   365
Asp Arg Gln Gly Glu Lys Lys Gly Val Phe Trp Tyr Asn Asn Lys Leu
    370                   375                   380
```

<210> 127
<211> 383
<212> PRT
<213> Glycine max

<400> 127
```
Met Gly Ala Gly Gly Arg Thr Asp Val Pro Pro Ala Asn Arg Lys Ser
1                   5                     10                    15
Glu Val Asp Pro Leu Lys Arg Val Pro Phe Glu Lys Pro Gln Phe Ser
                20                    25                    30
Leu Ser Gln Ile Lys Lys Ala Ile Pro Pro His Cys Phe Gln Arg Ser
            35                    40                    45
Val Leu Arg Ser Phe Ser Tyr Val Val Tyr Asp Leu Thr Ile Ala Phe
```

```
              50                      55                        60
Cys Leu Tyr Tyr Val Ala Thr His Tyr Phe His Leu Leu Pro Gly Pro
65                      70                      75                      80
Leu Ser Phe Arg Gly Met Ala Ile Tyr Trp Ala Val Gln Gly Cys Ile
                    85                      90                      95
Leu Thr Gly Val Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
                    100                     105                     110
Ser Asp Tyr Gln Leu Leu Asp Asp Ile Val Gly Leu Ile Leu His Ser
                    115                     120                     125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
            130                     135                     140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                     150                     155                     160
Gln Lys Ser Cys Ile Lys Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Pro
                    165                     170                     175          .
Gly Arg Val Leu Thr Leu Ala Val Thr Leu Thr Leu Gly Trp Pro Leu
                    180                     185                     190
Tyr Leu Ala Leu Asn Val Ser Gly Arg Pro Tyr Asp Arg Phe Ala Cys
                    195                     200                     205
His Tyr Asp Pro Tyr Gly Pro Ile Tyr Ser Asp Arg Glu Arg Leu Gln
            210                     215                     220
Ile Tyr Ile Ser Asp Ala Gly Val Leu Ala Val Val Tyr Gly Leu Phe
225                     230                     235                     240
Arg Leu Ala Met Ala Lys Gly Leu Ala Trp Val Val Cys Val Tyr Gly
                    245                     250                     255
Val Pro Leu Leu Val Val Asn Gly Phe Leu Val Leu Ile Thr Phe Leu
                    260                     265                     270
Gln His Thr His Pro Ala Leu Pro His Tyr Thr Ser Ser Glu Trp Asp
            275                     280                     285
Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Ile Leu
            290                     295                     300
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Ala His His Leu
305                     310                     315                     320
Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                    325                     330                     335
Lys Pro Ile Leu Gly Glu Tyr Tyr Arg Phe Asp Glu Thr Pro Phe Val
                    340                     345                     350
Lys Ala Met Trp Arg Glu Ala Arg Glu Cys Ile Tyr Val Glu Pro Asp
            355                     360                     365
Gln Ser Thr Glu Ser Lys Gly Val Phe Trp Tyr Asn Asn Lys Leu
            370                     375                     380
```

<210> 128
<211> 383
<212> PRT
<213> Sesamum indicum

<400> 128
```
Met Gly Ala Gly Gly Arg Met Ser Asp Pro Thr Thr Lys Asp Glu Gln
1                       5                       10                      15
Lys Lys Asn Pro Leu Gln Arg Val Pro Tyr Ala Lys Pro Pro Phe Thr
                    20                      25                      30
Leu Gly Asp Ile Lys Lys Ala Ile Pro Pro His Cys Phe Glu Arg Ser
                    35                      40                      45
Val Ser Arg Ser Phe Ser Tyr Val Val Tyr Asp Leu Val Ile Val Phe
            50                      55                      60
Leu Leu Tyr Tyr Ile Ala Thr Ser Tyr Phe His Leu Leu Pro Ser Pro
```

```
65                      70                      75                      80
Tyr Cys Tyr Leu Ala Trp Pro Ile Tyr Trp Ala Val Gln Gly Cys Val
                85                      90                      95
Cys Thr Gly Ile Trp Val Ile Ala His Glu Cys Gly His His Ala Phe
                100                     105                     110
Ser Asp Tyr Gln Trp Leu Asp Asp Thr Val Gly Leu Ile Leu His Ser
                115                     120                     125
Ala Leu Leu Val Pro Tyr Phe Ser Trp Lys Tyr Ser His Arg Arg His
        130                     135                     140
His Ser Asn Thr Gly Ser Leu Glu Arg Asp Glu Val Phe Val Pro Lys
145                     150                     155                     160
Pro Lys Ser Arg Val Ser Trp Tyr Ser Lys Tyr Leu Asn Asn Pro Leu
                165                     170                     175
Gly Arg Val Ile Thr Leu Val Val Thr Leu Thr Leu Gly Trp Pro Leu
                180                     185                     190
Tyr Leu Leu Phe Asn Val Ser Gly Arg Pro Tyr Asn Arg Phe Ala Cys
        195                     200                     205
His Phe Asp Pro Tyr Gly Pro Ile Tyr Asn Asp Arg Glu Arg Leu Gln
        210                     215                     220
Ile Phe Ile Ser Asp Ala Gly Ile Ile Ala Ala Val Cys Val Leu Tyr
225                     230                     235                     240
Arg Val Ala Leu Val Lys Gly Leu Ala Trp Leu Val Cys Val Tyr Gly
                245                     250                     255
Val Pro Leu Leu Ile Val Asn Gly Phe Leu Val Leu Ile Thr Phe Leu
                260                     265                     270
Gln His Thr His Pro Ser Leu Pro His Tyr Asp Ser Ser Glu Trp Asp
        275                     280                     285
Trp Leu Arg Gly Ala Leu Ala Thr Val Asp Arg Asp Tyr Gly Val Leu
        290                     295                     300
Asn Lys Val Phe His Asn Ile Thr Asp Thr His Val Thr His His Leu
305                     310                     315                     320
Phe Ser Thr Met Pro His Tyr His Ala Met Glu Ala Thr Lys Ala Ile
                325                     330                     335
Lys Pro Ile Leu Gly Gln Tyr Tyr Gln Phe Asp Gly Thr Pro Phe Tyr
                340                     345                     350
Lys Ala Met Trp Arg Glu Ala Lys Glu Cys Leu Tyr Val Glu Pro Asp
        355                     360                     365
Glu Ser Thr Pro Asp Lys Gly Val Phe Trp Tyr Lys Asn Lys Phe
        370                     375                     380
```

<210> 129
<211> 9
<212> PRT
<213> Human influenza virus

<400> 129
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
 1   5

<210> 130
<211> 12
<212> DNA
<213> Ricinus communis

<400> 130
agaaaggagg aa   12